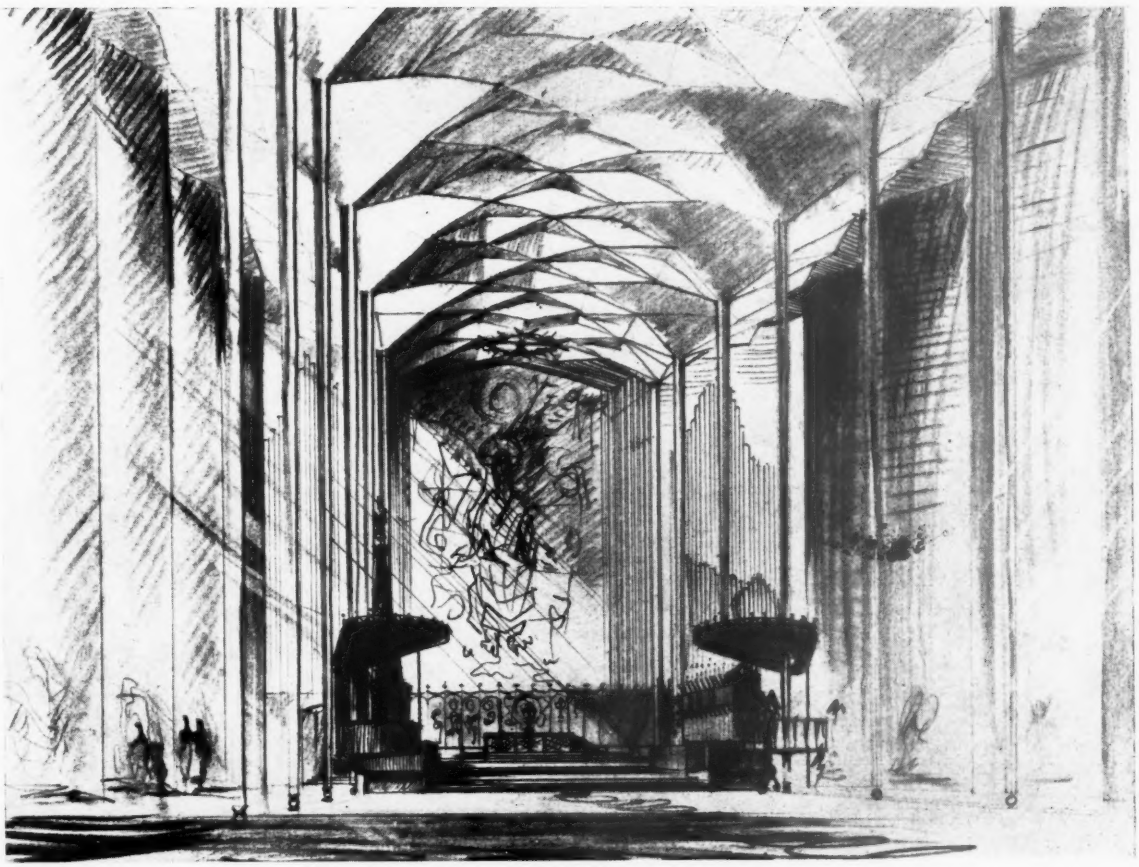
THIRD SERIES VOL 63 NUMBER 9 JULY 1956

THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

66 PORTLAND PLACE LONDON W1 · TWO SHILLINGS AND SIXPENCE



Coventry Cathedral: study by Basil Spence, O.B.E., A.R.A., A.R.S.A. [F]

THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

THIRD SERIES VOLUME SIXTY-THREE NUMBER NINE TWO SHILLINGS AND SIXPENCE
66 PORTLAND PLACE LONDON W1 TELEPHONE LANGHAM 5721–7 TELEGRAMS: RIBAZO WESDO LONDON

JULY 1956

Council Election Results

Report to the Chairman of the General Meeting, Tuesday 19 June 1956

The Scrutineers appointed to count the votes for the election of the Council for the Session 1956–1957 *beg to report as follows:*

4,723 *Voting Papers were received.*

In addition 150 *envelopes were received which were invalid* (8 *unsigned*, 44 *unstamped*, 97 *too late*, 1 *unsealed and empty*).

The result of the election is as follows:

COUNCIL 1956–1957

President

KENNETH MERVYN BASKERVILLE CROSS (unopposed)

Past-Presidents

CHARLES HERBERT ASLIN (unopposed)
SIR HOWARD ROBERTSON (unopposed)

Members of Council

Elected		*Votes*
1.	SIR HUGH MAXWELL CASSON	2,733
2.	PROFESSOR ROBERT HOGG MATTHEW	2,391
3.	FRANCIS REGINALD STEVENS YORKE	2,070
4.	PROFESSOR ROBERT JOSEPH GARDNER-MEDWIN	1,686
5.	JOHN MURRAY EASTON	1,599
6.	ARTHUR GEORGE LING	1,562

Not Elected		*Votes*
7.	HUBERT BENNETT	1,371
8.	BRYAN PERCY WESTWOOD	1,351
9.	MISS JANE BEVERLY DREW	1,266
10.	CECIL HOWITT	1,205
11.	JOHN HENRY FORSHAW	1,198
12.	FREDERICK BERNARD POOLEY	999
13.	CLIFFORD EWART CULPIN	983
14.	STANLEY WAYMAN MILBURN	780
15.	SAMUEL ERNEST URWIN	714
16.	FREDERICK CHARLES SAXON	669
17.	WILLIAM HARDIE KININMONTH	604
18.	FRANCIS JAMES MASSEY ORMROD	556
19.	THOMAS EUGENE NORTH	508
20.	PHILIP GARFORTH FREEMAN	373
21.	ALLAN JOHNSON	362
22.	LOCKHART WHITEFORD HUTSON	333
23.	SAMUEL STERN	150

4,707 Voting Papers were received of which 18 were invalid.

Associate Members of Council

Elected		*Votes*
1.	STIRRAT ANDREW WILLIAM JOHNSON-MARSHALL	1,628
2.	JOHN CECIL STILLMAN	1,528
3.	SERGEI KADLEIGH	1,167

Not Elected		*Votes*
4.	ALBERT WILLIAM CLEEVE BARR	968
5.	LESLIE HUGH WILSON	918
6.	NORMAN PERCY THOMAS	905
7.	RICHARD LLEWELYN DAVIES	904
8.	DENZIL BRIDGE NIELD	869
9.	ALEXANDER STEELE	855
10.	ROBERT MACKELLAR	752
11.	CHARLES HOWARD SIMMONS	651
12.	BERNARD ARTHUR LE MARE	622
13.	GEOFFREY JOHN FOXLEY	540
14.	ROBERT TERENCE KENNEDY	379

4,641 Voting Papers were received of which 31 were invalid.

Licentiate Members of Council

Elected		*Votes*
1.	GWYN HENRY MORRIS	1,569

Not Elected		*Votes*
2.	HARRY DURELL	1,051
3.	W. NORMAN OLIVER	930

3,568 Voting Papers were received of which 18 were invalid.

Representatives of Allied Societies in the United Kingdom or the Republic of Ireland

(1) *Six Representatives from the Northern Province of England*

DONALD MCINTYRE [*F*] (Northern Architectural Association)
ROBERT MACKISON MCNAUGHT [*F*] (Manchester Society of Architects)
LESLIE WILLIAM MACBRYDE ALEXANDER [*A*] (Liverpool Architectural Society)
HAROLD DENT PRIESTMAN [*F*] (York and East Yorkshire Architectural Society)
NORMAN HAROLD FOWLER [*F*] (West Yorkshire Society of Architects)
HARRY BECKETT SWIFT GIBBS [*F*] (Sheffield, South Yorkshire and District Society of Architects and Surveyors)

(2) *Five Representatives from the Midland Province of England*

HERBERT JACKSON [*F*] (Birmingham and Five Counties Architectural Association)
JOHN HUGH LLOYD OWEN [*F*] (Leicestershire and Rutland Society of Architects)
ALLEN WOODWARD WILSON [*F*] (Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects)
WILLIAM CAPARNE BALDRY [*L*] (Nottingham, Derby and Lincoln Society of Architects)
HUMPHREY COLMAN BOARDMAN [*F*] (East Anglian Society of Architects)

(3) *Six Representatives from the Southern Province of England*

CYRIL FREDERICK JAMES THURLEY [*F*] (Devon and Cornwall Society of Architects)
JOHN NELSON MEREDITH [*F*] (Wessex Federal Society of Architects)
ERIC STEWARD SMITH [*F*] (Berks, Bucks and Oxon Architectural Association)
PETER MCGEOCH CORSAR [*F*] (Hampshire and Isle of Wight Architectural Association)
PAUL VICTOR EDISON MAUGER [*F*] (Essex, Cambridge and Hertfordshire Society of Architects)
ROBERT DUNCAN SCOTT [*F*] (South-Eastern Society of Architects)

(4) *Four Representatives of Allied Societies in Scotland to be nominated by the Council of the Royal Incorporation of Architects in Scotland*

(5) *One Representative of Allied Societies in Wales*

WILLIAM STEPHEN THOMAS [*A*] (South Wales Institute of Architects)

(6) *Two Representatives of Allied Societies in Ireland*

WILLIAM HENRY DUNLEVY MCCORMICK [*A*] (Royal Institute of the Architects of Ireland)
JOHN DENIS MCCUTCHEON [*L*] (Royal Society of Ulster Architects)

Representatives of Societies in Alliance with the Royal Institute Overseas

ARTHUR JAMES CARMAN PAINE [*F*] (Royal Architectural Institute of Canada)
THOMAS EDWARD SCOTT [*F*] (Representative in the United Kingdom)
To be nominated (Royal Australian Institute of Architects)
To be nominated (Representative in the United Kingdom)
JACK IAN KING [*F*] (The New Zealand Institute of Architects)
REGINALD HAROLD UREN [*F*] (Representative in the United Kingdom)
JOHN JOSEPH OVERTON ORPEN [*A*] (The Institute of South African Architects)
MICHAEL THEODORE WATERHOUSE [*F*] (Representative in the United Kingdom)
GAJNAN BABOORAO MHATRE [*F*] (The Indian Institute of Architects)
STUART BENTLEY [*F*] (Representative in the United Kingdom)

Representative of the Architectural Association (London)

GONTRAN GOULDEN [*A*]

Representative of the Association of Building Technicians

KENNETH JOHN CAMPBELL [*A*]

Chairman of the Board of Architectural Education

RODERICK EUSTACE ENTHOVEN [*F*]

Chairman of the R.I.B.A. Registration Committee

HOWARD VICARS LOBB [*F*]

Two Representatives of the R.I.B.A. Salaried and Official Architects' Committee

(To be nominated)

Chairman of the R.I.B.A. Allied Societies' Conference

HAROLD CONOLLY [*F*]

Election of Two Honorary Auditors

EDWARD DOUGLAS LYONS [*A*]
JOHN RATCLIFF [*F*]

Scrutineers

THOMAS SIBTHORP	A. J. NORCLIFFE
SIDNEY H. FISK	JOHN A. WHITTAKER
R. G. D. VERNON	F. S. ALEXANDER
D. MURRAY EVANS	GORDON STEELE
M. C. GRAY	JAMES C. KENNEDY
MAURICE H. RUSSELL	E. C. C. HUGHES
FRANCIS KERR	RONALD HARDY
R. E. SUMMERS	D. S. PEARCE
JOHN J. ADAMS	F. A. M. SELLEY
NORMAN RIX	W. A. SHERRINGTON

E. H. FIRMIN, *Chairman*

14 June 1956

R.I.B.A. Officers 1956–57

At the meeting of the Council on 3 July, Mr. Leonard C. Howitt [*F*] (Manchester) and Mr. Thomas E. Scott, C.B.E. [*F*] (London) (previously Hon. Treasurer), were appointed Vice-Presidents, and Dr. J. Leslie Martin [*F*] was re-appointed Vice-President. Mr. Harold Conolly, C.B.E. [*F*], who has been appointed Chairman of the Allied Societies' Conference for the Session, is already a Vice-President. Professor Basil Spence, O.B.E. [*F*] (London), was appointed Hon. Secretary and Mr. E. D. Jefferiss Mathews, O.B.E. [*F*] (London) (formerly Hon. Secretary), was appointed Hon. Treasurer.

R.I.B.A. Architecture Bronze Medals

The Council have approved the award of the Medal for the four-year period ended 31 December 1954 in the area of the Hampshire and Isle of Wight Architectural Association in favour of the factory built for Messrs. L. M. Van Moppes and Sons, Ltd., Basingstoke, by Mr. Leslie Wood [*A*]. The Council have approved the award for the five-year period ended 31 December 1955 in the area of the Western Australian Chapter of the R.A.I.A. in favour of the Nurses' Quarters Building, the King Edward Memorial Hospital, Perth, designed by the Public Works Department (Principal Architect Mr. A. E. Clare [*F*]).

New Appointments

THE JOURNAL extends its congratulations and best wishes to Mr. Hubert Bennett [*F*] on his appointment as Architect to the London County Council, and to Dr. Leslie Martin, M.A., Dist. T.P., Vice-President R.I.B.A., who relinquishes that post for the Chair of Architecture in Cambridge University.

Mr. Bennett and Dr. Martin both take up their appointments on 1 October.

The Library Group

At the R.I.B.A. Library Group A.G.M. on 25 June, Mr. R. E. Enthoven [*F*] was elected Chairman in place of Mr. John Summerson [*A*]. Mr. Kenneth S. Mills [*A*] and Mr. W. H. Allen [*A*] were re-elected Hon. Secretary and Hon. Treasurer respectively.

Archimation

The A.B.S. Ball Committee, after brain-racking deliberations at its meeting on 13 June, decided that the theme for the 1956 Ball should be 'Archimation', a hybrid word coined from 'Architect' and 'Automation'. The pendulum thus swings from the Stone Age setting of last year's Ball into what is hoped (or feared) is the future. This idea should allow considerable scope for imagination both in the décor and the programme, and it will surprise no one if a character by the name of 'Archie Mation' is brought in somewhere.

The Ball, which will be in aid of the A.B.S. Homes Trust, will be held at Grosvenor House on 12 December.

Coventry Cathedral Windows

Six of the ten stained glass windows for the nave of the new Coventry Cathedral are on view at the Victoria and Albert Museum until the end of September.

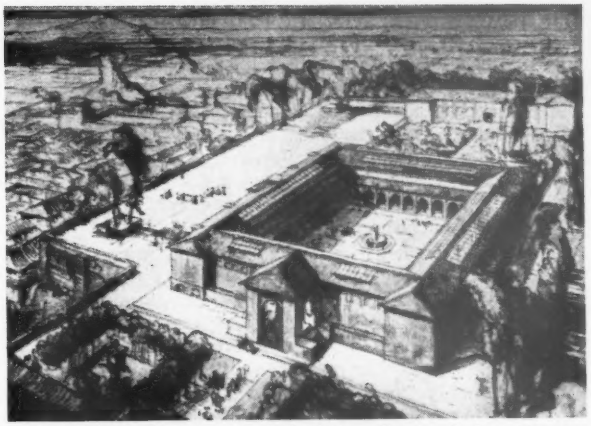
The actual windows, each 70 ft. high by 8 ft. wide, have been erected in the form of a montage simulating as far as possible the impression they will create when in position at Coventry. The artists are Lawrence Lee, A.R.C.A., Keith New, A.R.C.A., and Geoffrey Clarke, A.R.C.A. The exhibition demonstrates admirably the value of early collaboration and understanding between the architect and his artists, and the successful achievement of Professor Spence's aim of integrating the stained glass with the fabric, inspired by the example of Chartres.

The exhibition has in fact created to a highly dramatic degree the atmosphere of a cathedral that is at the same time modern and traditional. It should not be missed.

The Cape Architectural Association: A Correction

The formation of a new body, the Cape Architectural Association, was the subject of an editorial comment in the JOURNAL of January 1956. It was stated that this new body 'had been created to fulfil a function which the Institute of South African Architects, a statutory body concerned primarily with registration, is not able to cover'. This description of the South African Institute gives a quite inadequate idea of its function. It is concerned with much more than registration; in fact it represents the R.I.B.A. in South Africa, and has statutory authority to direct and control architectural and quantity surveying education within the Union of South Africa. The I.S.A.A. is very keenly interested through its Board of Education in maintaining standards of professional education and examinations and also in maintaining and improving the standard of professional practice.

The Institute brings together at periodical Congresses and Summer Schools members scattered over a vast area. Through its Architectural Science Committee it keeps abreast of current building research and also renders a social service to its membership by means of an Architects' and Quantity Surveyors' Medical Aid Fund.



The late Sir Frank Brangwyn, R.A. [*Hon. A*], who died on 11 June at the age of 89, was the son of an architect, William Curtis Brangwyn, and among several of his essays in architecture were drawings made in 1920 for a projected Gallery of Western Art, Tokyo, one of which is reproduced above from THE BUILDER. An appreciation by Sir Percy Thomas, who knew Brangwyn, appears on p. 402.

Medieval Paintings from Norwich

An exhibition of eight panels of late 14th- and 15th-century paintings from the church of St. Michael at Plea, Norwich, opened at the Victoria and Albert Museum on 17 July and continues until 28 October. The exhibition, which was organised in conjunction with the Courtauld Institute of Art, provides an opportunity to appreciate the riches our parish churches once possessed.

Olympic Games Hospitality

Any members who are considering going to Melbourne for the Olympic Games which are being held there from 22 November to 8 December can solve the problem of accommodation through the generosity of the Royal Victorian Institute of Architects whose members would be delighted to welcome members of the R.I.B.A., their wives and friends as guests in their houses for the period of the Games.

A letter to the Secretary R.I.B.A. from the Secretary of the Royal Victorian Institute appears on page 394.

Middlesex Development Plan

The Minister of Housing and Local Government has approved with modifications the County of Middlesex Development Plan after the examination of over 7,500 objections heard at a public enquiry over a period of nearly four months.

The Minister concurs with the County Council's policy of preventing any increase in the volume of industry and with their recognition of the need for some of it to move out of the county, and in the light of this has reallocated 209 acres which were proposed as additional land for industry. They will now be used for purposes which reflect the predominating existing use.

The County Council are invited to consider seriously the acquisition by agreement of factory premises vacated by firms which either move out of Middlesex or from a residential to an industrial area inside the county.

The Minister also hopes that some business concerns will be persuaded to establish their offices in the outer areas.

Mr. Sandys Calls for More Trees

The Minister of Housing and Local Government has urged local authorities to get more trees planted in towns and villages, and in particular in areas of slum clearance. The Minister announces that he is having an illustrated technical manual prepared giving advice on tree-planting in towns.

Points from the Minutes of the Council Meeting held on 19 June 1956

THE PRINCIPAL matters dealt with by the Council were very briefly as follows:

Joint Advisory Committee on Training in the Building Industry. After consultation with the Board of Architectural Education, the Joint Consultative Committee of Architects, Quantity Surveyors and Builders submitted a report to the Council, and to the Councils of the other bodies constituting the Joint Committee, making the following recommendations:—

That an exploratory Committee, to be known as the Joint Advisory Committee on Training in the Building Industry, should be set up; that the terms of reference be to explore current systems of training and to make recommendations for future action including the setting up of a committee as envisaged by the Building Training Conference held in January 1956; that the constitution of the exploratory Committee should be three representatives of the Joint Consultative Committee, three representatives of the R.I.B.A. Board of Architectural Education, two representatives of the Board of Building Education, and two representatives of the Quantity Surveyors' Committee, R.I.C.S.; that the Committee should have power to call upon experts to give evidence if desired and that the Committee should report to the Joint Consultative Committee who would be responsible for the secretarial services.

The Council approved these proposals.

The Conference on Building Training under the chairmanship of Mr. Harvey G. Frost, O.B.E., was reported in the February JOURNAL. The terms of its report back to the main committee were as follows: 'That this Conference, being confident that the building industry could improve its standards and raise its productivity by interrelating the training of its constituent administrative branches, invites the Joint Consultative Committee of Architects, Quantity Surveyors and Builders to sponsor a representative National Advisory Committee to keep under review the current systems of training, including qualification by examination, to consult the responsible bodies and to assist in promoting mutual developments, and to report periodically.'

The Council had on its agenda three items concerning the London County Council, the first being:—

London Building Bye-laws, 1952: Proposed Amendments. The Institute had been informed that, following upon a number of failures in the fixing of cladding on buildings, the L.C.C. were proposing to make certain amendments to the Bye-laws to provide a check on methods of fixing and it was proposed to delegate authority to district surveyors. It had however been pointed out that the complete revision of the Bye-laws was due in 1958 and that it might be better in the meantime, while these new techniques were being tried out, if matters were centrally controlled so that a body of information could be collated and the powers exercised by the granting of waivers.

The Council approved this alternative proposal for submission to the L.C.C. The next point concerned

Transfer and Delegation of Powers to Metropolitan Borough Councils. The Council were informed of proposals to transfer certain powers from the L.C.C. to Metropolitan Borough Councils. The majority of the proposals were not connected with architectural or town planning matters. It was agreed to reserve for future comment a proposal to delegate the power to make orders for preservation of trees and woodlands and to consult the Town and Country Planning and Housing Committee. On the general point of the delegation of planning powers, it was agreed that any extension of delegated powers was not in the best public interest, since it could multiply the number of authorities to be dealt with and complicate the channels of communication.

And lastly the question of

Ventilated Lobbies for Water Closets. It was agreed to give support to a motion moved in the London County Council for the reconsideration by the Health Committee and Housing Committee of the L.C.C. Bye-laws on the provision of ventilated lobbies. While it was accepted that the provision of a ventilated lobby between a water closet and any other room was desirable in principle, it was agreed that there were many occasions, especially in conversion work, where the provision of such a lobby involved disproportionate cost and loss of otherwise valuable accommodation, and that there should be powers to grant waivers.

Taxation Treatment of Provisions for Retirement. This is a matter that is of interest to many members.

The Council considered a report from the R.I.B.A. representatives on meetings convened by the Law Society and attended by representatives of the leading professional institutions to consider and make representations on the provisions of the Finance Bill 1956. The Bill provides for the purchase of retirement annuities by self-employed persons, the premiums of which up to certain limits will be tax-free. As a result of representations made, certain further concessions were to be made by Parliament, especially in regard to those who were partly self-employed and partly salaried. The Council were also informed that the Architects' Benevolent Society were arranging for the provision of suitable annuity schemes for architects in private practice.

The Journal. The Council approved a report from a Sub-Committee recently appointed to review the presentation and contents of the R.I.B.A. JOURNAL. The Committee, after referring to the results of the 'Reader-Critic' scheme, concluded that the general content of the JOURNAL was satisfactory to the majority of members and that no more than some minor changes should be put into effect. The Sub-Committee had also gone into the question of the packing of the JOURNAL for dispatch and enquiries had shown that the cost of packing flat would be quite prohibitive.

Finally it was proposed to take a further census under the 'Reader-Critic' scheme in about a year. This should give members time to read the JOURNAL critically and form their opinions in readiness to express them when called upon.

Licentiateship Committee. Admission to the class of Licentiates having been discontinued on 31 December 1955, the Council received and approved the final report of the Licentiateship Committee and an expression of appreciation of their work was accorded to the members of the Committee.

Value of Work which may be Tendered for without Quantities. On the recommendation of the Allied Societies' Conference, it was agreed to ask the Joint Consultative Committee of Architects, Quantity Surveyors and Builders to review the present limit of £3,000 in value of work which may be tendered for without quantities.

R.I.B.A. Small House Designs. Approval was given to the details of the scheme formulated by the Public Relations Committee for the provision of R.I.B.A. designs for small houses and for the setting up of a Designs Executive Committee and the initiation of a competition for the production of these designs. It is vital to the success of the scheme that a large number of designs of high standard be submitted. Full details are to be published in the R.I.B.A. JOURNAL and the technical Press at a later stage.

Collection of Photographs of Architects' Work. The object of the collection was to establish a record at headquarters in photographic form which could be drawn upon for exhibitions and for illustrations to articles, etc. In spite however of a number of reminders the response has been very small indeed—only 67 members have submitted photographs representing a total of 153 jobs and about one-third of these have already been illustrated in the technical Press. The Council have decided that the scheme should be abandoned and no further photographs should therefore be sent in for this collection. Material already submitted will of course be retained and used as required.

The Modern Church

By Professor Basil Spence, O.B.E., A.R.A., A.R.S.A. [*F*]

Read at the R.I.B.A. 19 June 1956

The President, Mr. C. H. Aslin, C.B.E., in the Chair

BEFORE I START reading what I have written I should like to make clear what I am going to say. I am not going to touch on the practical requirements of churches, how they should be planned, what the different denominations require, or anything of that kind. What I want to talk about is that elusive thing called 'atmosphere' which is a functional thing in a church. A marvellous book has just been produced by Mr. Edward Mills; it is a jolly fine book on churches and you should all read it.

This paper has been entitled 'The Modern Church', and I suppose I could have written a lecture incorporating most of the modern theories and illustrating quite a few of the new churches, but I felt that you would be more interested in the subject if I could tell you of first-hand experiences in the examination of various churches.

For this purpose, and using it as a good excuse, I went to France and Switzerland to see some of the modern churches there. I saw many churches but one cannot discuss all I saw in forty minutes, so I have chosen five. Five rather significant ones, so that we can examine these, and I will do the paper in the form of a travelogue. A story of a journey across France into Switzerland, and then back again.

I think the principles of church design will come out themselves, and you will see where, and how, a church fails and where it succeeds, just by the discussion and by looking at the photographs I have taken. Now I would like to say a word about these photographs; I am no professional photographer, they are just snaps, and they are snaps in colour, they have been taken from the angles that I looked at these churches, so that you will, perhaps, see them through my own eyes.

But before we look at the pictures, let us get clear the object of building a church. In other words, let us discuss function. I am interested in this subject. It is just not good enough that the building should look functional and not work properly, like a beautifully styled motor car without an engine. In the Anglican and Roman Catholic communions the altar is the pivot, the spark, the climax, it *is* the church. It is here that ancient and solemn ceremonies take place; it is here that men and women kneel and bare their souls and confess their sins in an attitude of humility. Architecture can serve this object; it has done so in the past with some magnificent results. St. Appolinare in Classe, built by the Roman Emperor Justinian, near Ravenna, is a supreme example of function; the divine gift of beauty is clearly evident.

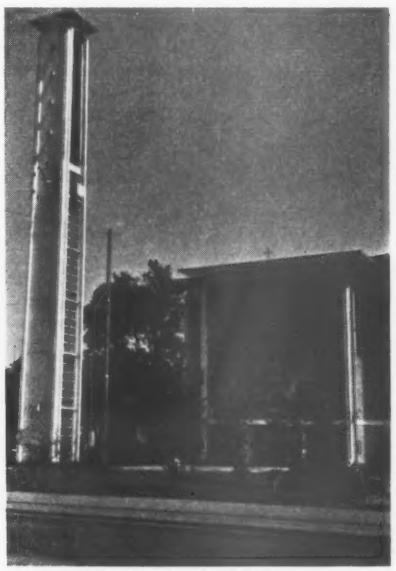
I know I am right when I say that the architect must submit himself to this belief if his church is to function adequately, and if function is an important factor he must feel this intensely. Further, it is not the tradition slavishly to copy other artists' work when producing a new church. Observe the principles of form and arrangement, but there must be vitality; this, of course, is the battle-ground.

In Nonconformist churches the architect's problem is much more difficult; but I know of some serene and simple Scottish kirks that are in every way successful, and we will be looking at Werner Moser's church at Zürich, which in my opinion is one of the most beautiful churches built in recent years. I submit that architecture can give exactly the correct background to help and stimulate this form of worship, a simple serene beauty, without the helpful aids usually at the command of architects who are designing for more orthodox forms of worship.

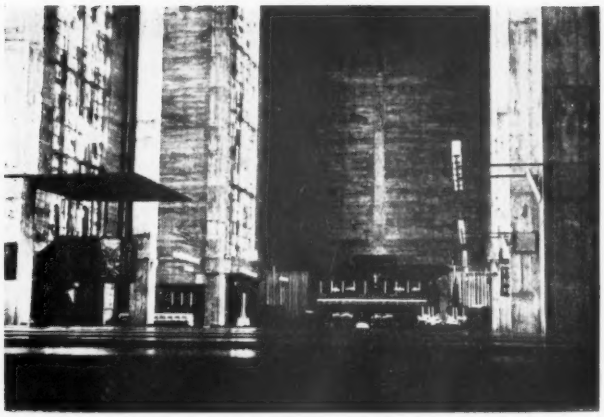
Now let us imagine we have arrived in Switzerland—at Basle—and we shall look first at a Roman Catholic church built of concrete by Professor Karl Moser in 1927. This church had quite a strong effect on subsequent designs, and it shows the influence of Perret, who, of course, did that remarkable church at Raincy in France. This church that we are looking at now was completed in 1927, which was a long time ago, but it is still fresh and very lively; and the tower, which is extremely high and prominent, can be seen from France, which after all is not far away, as Basle is on the borders. It was our first intimation that we were reaching Switzerland when we saw the

St. Antonius, Basle, 1927

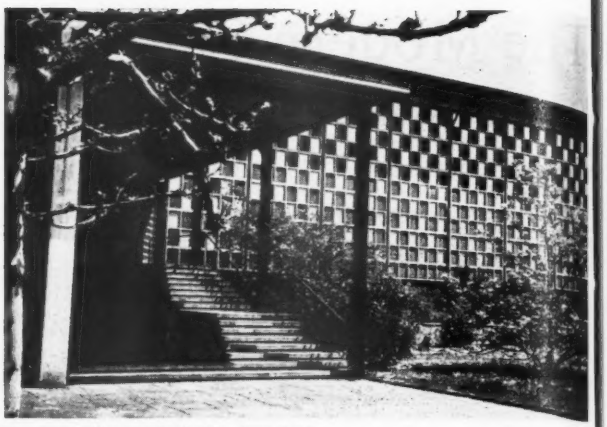
The Steel Church, Basle, 1936



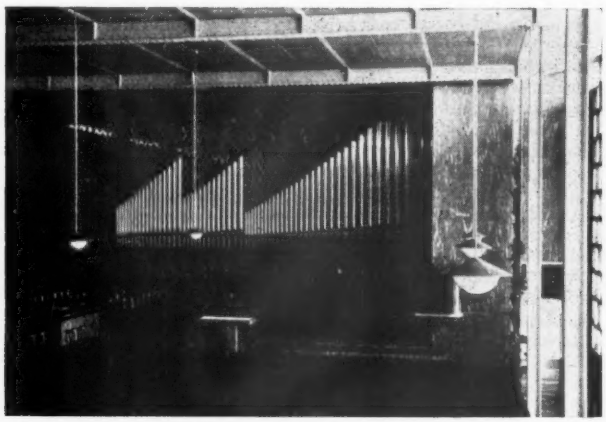
Hermann Baur's Church, Basle



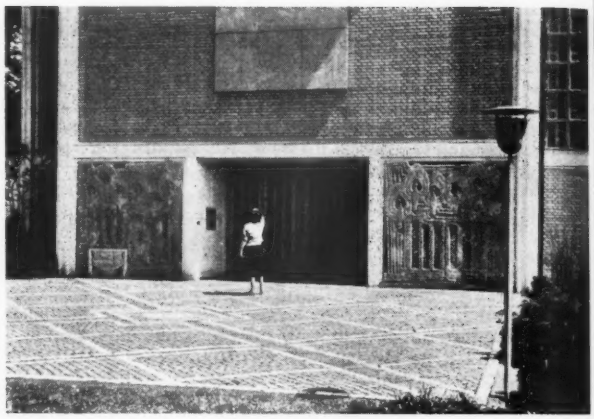
'The interior is simple, traditional, very strong and very moving'



'A very well organised side elevation'



'More like a concert hall than a church'



'Looks very beautiful with a slanting light on it'

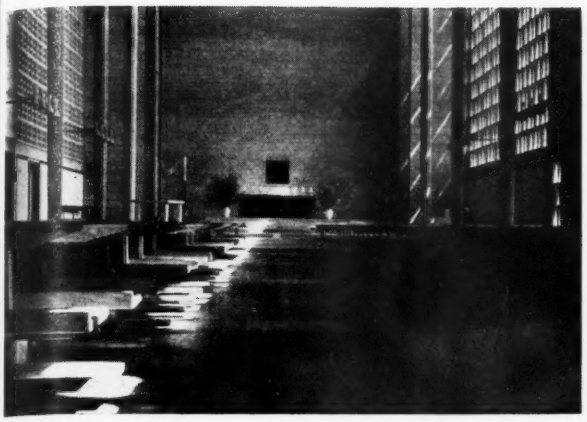
topmost part of this tower appearing over the horizon.

We now look at the interior which is simple, traditional, very strong and very moving. I saw many people praying in this church. There is no doubt that St. Antonius, which is, as I have already said, a Roman Catholic church, does function as a church. It has an atmosphere of reverence and quiet simplicity which is most impressive. Here we see the age-old tradition of church form spoken in our own language. This church has vitality—it will live.

Within a very short distance of St. Antonius is the Steel Church, designed by Burckhardt and Egender in 1936. This is a Nonconformist church, and though the exterior proclaims the function of the building, and I think is very successful, and especially the openness of the porch and the very well-organised side elevation of chequerboard solid and void, I am not so certain of the interior which is interesting from an architectural point of view. As architecture I was excited by it, but I felt that it looked more like a concert hall than a church. You could see in front of you the arrangement for the organ behind the stage or rostrum, and on the left the place for the choir, and in front a very small and insignificant communion table. A much later church which I am going to show you, designed by Professor Karl Moser's son, Werner Moser, the church at Alstetten, is also a Protestant church, but I think succeeds extremely well where this one fails.

We are now looking at a Roman Catholic church built recently in Basle. The church, recently completed, was designed by Hermann Baur. Clearly influenced by Perret, externally I do not think this building succeeds very well. Though it is simple and clear in its concept, there appears to be a thinness about the architecture which I did not like. The tower standing separately seems too thin to my eyes, but even so it had a sinewy strength about it which was interesting, and the materials were immaculately chosen. And, as with all Swiss churches, the landscaping was beautifully thought out, and the planting sensitive and careful, the use of materials painstakingly looked after, and the quality of some of the detail I thought was excellent: for instance, the flanking panels of incised sculpture beside the front entrance. We know how banal sculpture can be on ecclesiastical work, but this work is clear, simple and looks very beautiful with a slanting light on it. The forecourt, too, is paved with cobbles and sets, and it looks good and acts as a very nice prelude to the entrance doors.

Inside, I found the interior simple and beautiful. I hadn't a tripod with me so I had to rest the camera on what I could find. Over here you can see a slight intrusion in the right-hand side of the photograph which was caused by my improvised stand. The altar is, I think, impressive in its simplicity and in its setting. There is a feeling of great breadth and dignity about the placing of the altar like this. There is no doubt that this is the climax of this building. There is no doubt also that it is the most important part of the interior and one's eye travels naturally to it. It is most beautifully carved, as we see on the next slide, with simple incised decoration which has its own meaning. You can see that there are the twelve cups, the symbol of the Eucharist in the shape of the fish, and various other symbols. All the materials used here were carefully chosen and beautifully worked for the forms that they took. You can see how well placed the communion rail is, and that the pews,



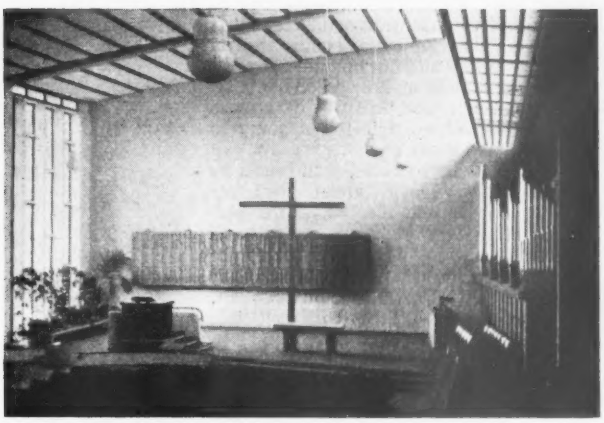
'I hadn't a tripod with me'

'The interior simple and beautiful'

'The fusion of old and new forms'

'Every detail has been thought out'

'The little water trough with seats round it'



'A cool, calm feeling of peace'

which is unusual in a Roman Catholic church, have been carefully designed and fit in extremely well with the general pattern of form.

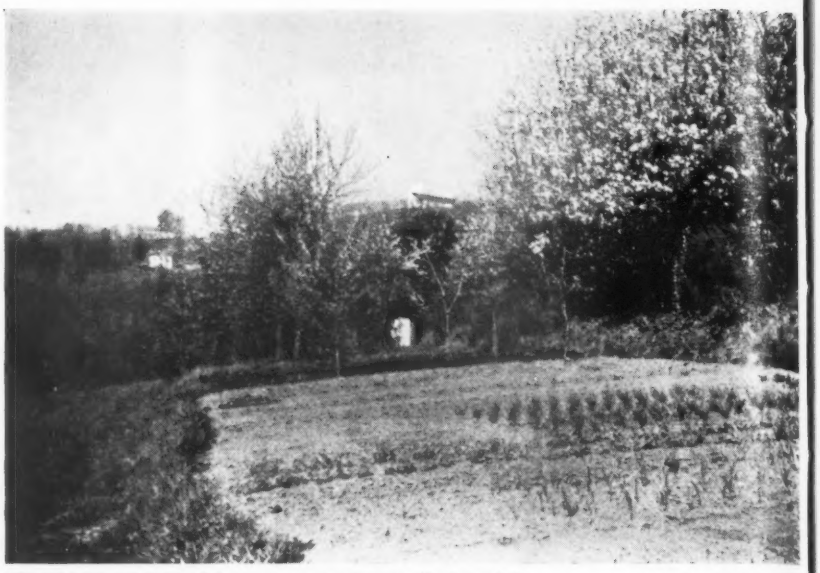
Now we come to one of the most successful of the Swiss churches, Werner Moser's church completed in 1941. Kidder Smith says that he thinks that this is probably the most successful church built so far, but that was before Ronchamp. It is interesting that this Protestant church at Alstetten should be put so near an old church; the old church speaks its mind quietly and gently as many old churches do, and the modern one does the same, but there is no doubt which is the modern and which is the old. This fusion of old and new forms I found extremely interesting. The characteristic of

the church was the immaculate placing of the new buildings in relation to what existed there before—old buildings, the trees and the general landscaping; this is probably a classic example of sensitive care in relation to what one found on the site. Every detail has been thought of and there is a sort of Japanese simplicity and lightness about the whole conception. Every stone seems to have been chosen and placed in position most carefully. Here we see the little water-trough, with seats round it and beautifully planted out trees of varying kinds. And on this slide we see the quality of the brick-work, and the care taken to pattern it. This again reminds me of Japan, but perhaps I am stressing this side too much. The entrance doors have the porch very nicely separated from the rest, a clear architectural setting to the entrance, and again it is most beautifully framed with the existing trees; and, of course, the materials are immaculately selected.

This interior really works up to a climax at the Cross. And there is no doubt that the gentle progression up the hill, past the old church, past the water-trough and the trees, and through the porch, and then inside, gives you that cool, calm, feeling of peace when you enter this church. How light and how beautiful are the details! And the quality of light itself without the aid of stained glass is something that has to be experienced in order to appreciate it fully. There are things that I don't absolutely agree with: I don't like the pulpit a great deal; I don't think this is up to the rest of the design, but on the whole I think this church is one of the masterpieces.

We now leave Switzerland and go back to France. I only propose to show one church—Ronchamp, and that is quite something. We approach Ronchamp on the road which is right down below the site, and from quite a distance you can see the spots of light that form the walls of this building; it looks like bits of broken china thrown on the top of the hill, but how thrilling and exciting these glimpses are! When I first set eyes on it I felt that here was adventure, here was something that I was going to experience and enjoy.

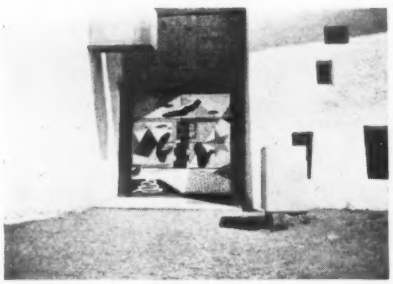
When I was very small I read books by Arthur Conan Doyle about Professor Challenger when he discovered the old-world plateau with prehistoric animals and so on, and this feeling of high adventure came back to me when I saw Ronchamp on that beautiful day with the blossom out. Now those of you who will visit this church—and I recommend this strongly to every one of you here, and others—you will probably go by car; if you do, leave your car at the car park which is only 30 or 40 yards off the main road, and to the left of the cart-track that leads up to this building. Then walk. This is the way to do it, because the glimpses of the building as you go up are really beautiful. And if you go in May when the blossom is out, as we did, it is breathtaking. I had time when we were walking up this hill—a steep hill—to think how traditional the approach is, and how ancient the idea was to put a temple on



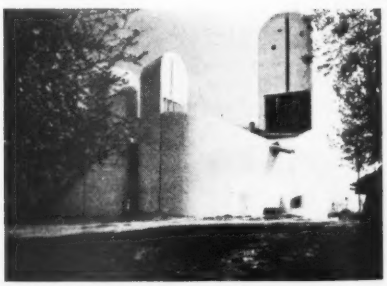
'The glimpses of the building as you go up are really beautiful'

'Extremely casual but very effective'

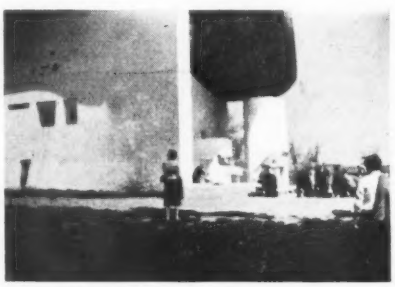
'It begins to lift its head'



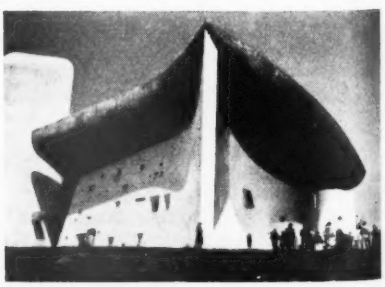
'Door painted by Corbusier'



'Wonderfully beautiful, very Eastern'

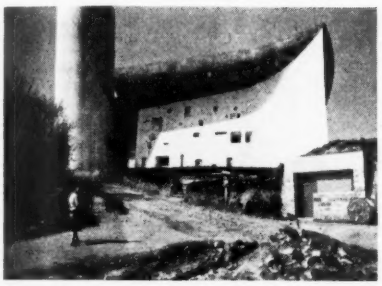


'The outdoor Mass'

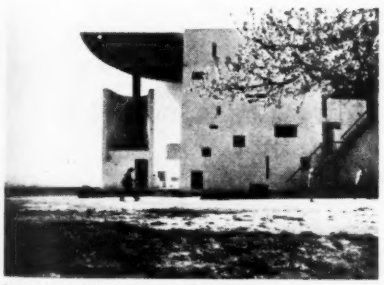


'Standing on its feet'

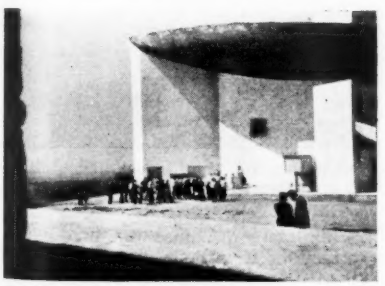
'A Mass celebrated outside'



'Monumental, strong, unusual'



'Thrilling side to the building'



'Setting of clear simple form'

high ground, and that one should walk up to it. The Via Sacra to the Acropolis is only one example, and here we were walking up this hill to visit one of the most modern churches by a master. Suddenly we leave the trees and through a screen of old buildings we see the first dynamic forms of this new church, and closer it begins to lift its head and appear over the casual banks of grass and débris, because unlike the Swiss churches this is not immaculately landscaped; it is extremely casual, but very effective.

Here is the building standing on its feet, monumental, strong, unusual, very like some of the Swiss buildings with their floating roofs and walls wrapped round for warmth. We saw the same tiny piercing often in this district, but not placed together with this immaculate sophistication. This of course reminds me of a projection box in the cinema, and it reminds many people of this, but it is an abstract pattern of some force and one was drawn, as if by a magnet, to the door painted by Corbusier, the main entrance—which was locked. I cannot give you the symbolism of this painting, but it is strong, effective, full of vitality, and has the same strength and vigour that one finds in the old paintings in old churches.

I propose to walk round the building, so now we go round on the shady side, and look out over the landscape, and to the right you see the great gargoyle, the great gusher that throws water splashing down onto the débris in the concrete bath below. Unfortunately the Master has had trouble with drains, because on the left is a mound of earth which has been thrown up from the trench. Fortunately the shape of this mound coincides or harmonises very well with the bulge made by the confessionals on the right.

Into the sun again, we look at the building through the blossom; it looks wonderfully beautiful, very Eastern, and yet is, without a doubt, from our own time. Turning a little bit towards the forecourt we look through to the twin towers back to back, which form the apses to the two chapels. This is a thrilling side to the building. The rectangular patterns on the flat wall, I think, are masterly in their arrangement. And the hollow screen which clothes the column supporting that part of the roof is imaginative and strong and is very monumental and has got great scale. This is sheer sculpture and when seen in the clear light on top of the hill, with the distance spreading out like a great carpet, it is magnificent.

We are now inside. Are we drawn towards the altar? No. The thing that attracted me, and which dazzled me, was the masterly treatment of the west wall. This is punctured with deep recessed windows studded with jewels of colour, in a wall which starts perhaps 12 ft. wide at the base and tapers up to nothing at the top. This is structure as the Baroquists used it, but this wall is thrilling and exciting and is a wonderful arrangement of abstract form, and the punctures of light are simply magnificent. The dazzle fades away, and we now see the richness of the colour when our eyes get accustomed to the interior. The windows themselves fit into the rhythm and fuse with the architecture in exactly the same way as Matisse has done it in his own personal way at the Chapel at Vence. I am normally affected by churches, and if a church expresses a feeling of great beauty, reverence, and in fact functions as a church, the way St. Appolinare in Classe does, and the way Chartres does, I cannot take liberties with the various parts of the church and the furniture, even for taking photographs. Over here, I am afraid, I was not affected like this: I hardly noticed the altar which seemed to be pushed to the side of the building, so I took this photograph from the pulpit, an unusual position for me. Whichever way one looked there was an abstract composition of great force, and exactly as the exterior is a monumental piece of sculpture in the round, the interior is a monumental piece of sculpture in the void.

The church, however, was dirty and uncared for. The seats had not been dusted for a long time, and the wooden blocks that form the base of the pews had not been polished for at least a month. In this photograph you can see against the door a crate; these are crates of candles that are just left. Now yet another abstract composition, this time showing the locked main entrance, excitingly painted, and on the right is one of the three chapels marked externally by a tower. But when you look up one of these towers, you see the plasticity and the strength of the form in the apse with the light filtering down in these most intriguing abstract patterns. But we have not seen an altar yet: this is a Roman Catholic Church, and when one considers the function of a church, and the great ceremonies that take place at the altar, this is the focal-point and functionally this is the spark, this is the jewel that has to be placed in the church. I do not think that Corbusier was much interested in the placing of his altar; here it is, pushed over to one side. There is great anti-climax here after that vibrating brilliance of his window wall. The altar looks uncared for and rather puny. I felt the interior was not designed to the glory of God, but rather to the glory of man, and one man in particular.

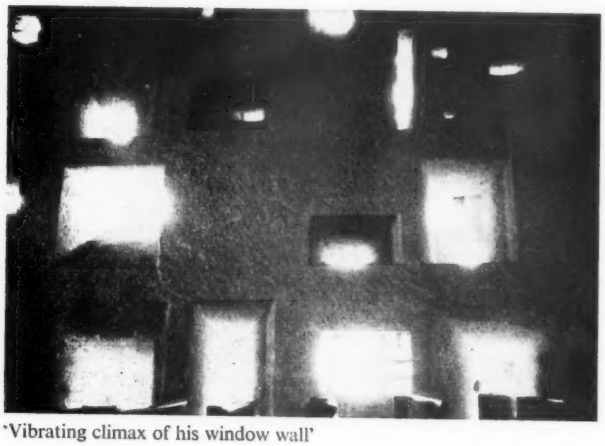
Outside again, we look at the setting for outdoor services; we saw one, and I photographed it. As the interior fails in climax, I think the exterior succeeds. We saw a Mass celebrated outside, a most moving sight. Here is the setting of clear simple form, vigorous and strong, Grecian in its purity and scale. Like a great sounding-board, this is truly a setting for the outside altar.

As the people gather, one is reminded that this new temple is on the site of a very ancient one. The outside altar is natural and right against Corbusier's monumental sounding-board—the world is his nave. And in the sunlight the pilgrims who have trudged up the hill drink in the magnificent view and in the warm sunshine kneel in prayer.

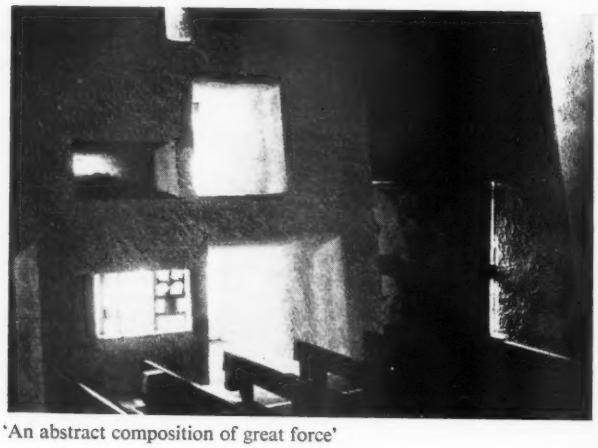
This is a most interesting building, a

'The outside altar is right against Corbusier's monumental sounding-board'

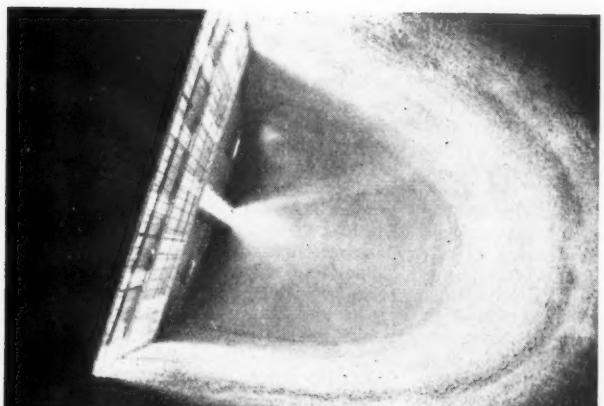
'To the right you see the great gargoyle'



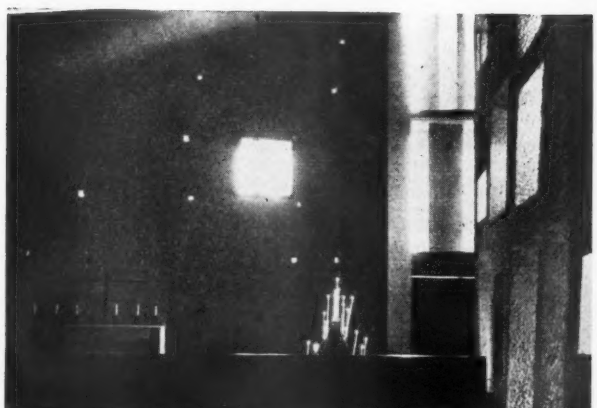
'Vibrating climax of his window wall'



'An abstract composition of great force'



'When you look up one of these towers'



'The altar seemed to be pushed to the side'

personal work of great intensity and genius. However, where are Corbusier's teachings of the last quarter of a century? Is *function* the main objective? Ask yourself this question. Again, where are the oft-expressed theories of structural expression? Is this building perhaps the first of the New Baroque? A machine to serve man? But I doubt if many machines were used in this construction; it is built mainly of stone. This is handwork, almost craft work. These are the questions—*you* answer them.

DISCUSSION

Sir Fordham Flower, O.B.E., D.L., Chairman of the Coventry Cathedral Reconstruction Committee, moving a vote of thanks to Professor Spence, said: It is a privilege to be here tonight and to be asked to propose a vote of thanks to Basil Spence, not only for what he has told us, but also for the exquisite quality of the photographs which matched the quality of the matter in his paper.

I should like to pin this vote of thanks to an anecdote telling you how he and I first met. As you know, we are associated in the building of a great church and perhaps it is a coincidence that we actually met for the first time in a church about five years ago. There was a great service in St. Paul's Cathedral to inaugurate the Festival of Britain in 1951. I went to the service and sat against one of the great pillars and watched everyone coming in.

In due course my next-door neighbour came and sat down. Most of us were in rather formal dress that morning and my neighbour was in a great fluster because he had a brown suit on and he immediately asked me if I thought he was improperly dressed. Well, it was a very nice new brown suit and was much better than my old tail coat which I had been married in 20 years before!

We talked, and he asked me what I was doing there and I said 'I do not know'. I asked him what he was doing there and it appeared that he had been responsible for the design of the pavilion of shipping on the South Bank. He asked me where I came from and I told him that I lived in Stratford-upon-Avon. He said to me, 'Do you know Coventry?', and I said 'Yes'. Then he said, 'Do you know anything about this cathedral?', and I said, 'I know a little because I am a humble lay member of the Reconstruction Committee.' I added, 'We are rather looking forward to the result of the competition', and so he said, 'I am having a bash at that.'

From this casual meeting under the vault of Wren's church there has in the course of time blossomed a very close association and a very close friendship between the two of us, focused on the great work which Spence is engaged upon at Coventry.

I am afraid that in these days the layman has not the opportunity that he had 200 or 300 years ago of being a great patron of the architectural profession. The economic situation has changed. I will say one thing, if I may, and that is that my own immediate family have not done badly in the last 100 years. We have given architects a lot of work; we have managed to build three breweries and a couple of theatres and a lot of private work, too; but I never thought I would have the unique privilege of being in on the building of a great cathedral in the 20th century. Good fortune like that does not come very often these days to the lay patron, particularly when it embraces an association and friendship with your lecturer tonight.

I have much pleasure in proposing a very warm vote of thanks.

Mr. Edward D. Mills [*F*], who seconded the vote of thanks, said: It gives me great pleasure to second this vote of thanks to Professor Basil Spence for his delightful and fascinating paper this evening. I have seen many of the Swiss churches that he has illustrated, and some others, and it is always a shock to realise that some of these buildings are now 20 years old and some older and yet today are still as lively and fresh as on the day they were completed. That, of course, is a great tribute to the Swiss authorities who look after the buildings and also to the care with which the architects and designers have detailed them.

Basil Spence has brought his usual enthusiasm and sincerity to his paper, very modestly omitting any reference to his own important contribution to the field of contemporary church design. We are all eagerly looking forward to the day when Coventry Cathedral is completed and I am certain that it will be a new landmark in modern churches, of which we shall all be very proud. Church buildings in the past have always been in the forefront of architectural progress, for the finest churches and cathedrals in every land have in their day been the most modern buildings of their time. One thinks of King's College Chapel at Cambridge as a marvellous example of curtain walling. The Henry VII Chapel at Westminster Abbey is an exact replica of the work of Professor Nervi in reinforced concrete. Professor Nervi was impressed when he was taken there and was surprised that the concrete technique had been initiated very much earlier than his designs.

The important fact is that the modern church should be the traditional church, for the traditional church *was* the modern church and it is a tragedy that the Church in this country appears to have lost this lead in the architectural field. Modern architecture has given us fine buildings for education, entertainment, transport and many other purposes, but few modern buildings for church purposes have been built, at least in this country. It is my belief that contemporary architecture can play a real part in the revitalising of the Church and that church architecture in our day should reflect our way of living by using materials and techniques for building with which we are familiar. If we do not build churches in keeping with the spirit of our age we shall be admitting that religion no longer possesses the same vitality that can be seen in our secular buildings.

Basil Spence has said that the designing of a church is not a planning problem but the opportunity of creating a shrine to the glory of God. This is a very true statement. Planning problems in many church projects are the least important. The creation of an appropriate atmosphere is the problem which faces the architect. Gothic churches, Renaissance cathedrals and Georgian nonconformist preaching houses all achieved this atmosphere in a manner which was contemporary in their day. Our problem is to achieve that end in our church building without slavishly copying the past but rather developing a new aesthetic which acknowledges contemporary architectural developments.

The illustrations shown by the lecturer tonight prove that this is possible and has been achieved with great success by devoted designers in France and Switzerland. Other examples can be seen in the Scandinavian countries and in America. Perhaps we can persuade Professor Spence to visit those countries and give us another lecture later on. It is an unfortunate fact that we have too few modern churches in this country and I hope that more lectures will be given by the speaker so that architects and laymen can see for themselves, with the help of his wonderful colour photographs, that contemporary architecture can make a valuable contribution to the design of churches and can maintain the tradition that the Church should be in the forefront of contemporary architectural development.

Mr. G. Grenfell Baines, A.M.T.P.I. [*A*]: I should like to say how glad I was that the lecturer stressed the importance of functional atmosphere and also emphasised that function is a really glorious source of inspiration in architectural design. I think sometimes we tend to look upon function as one of the more tedious aspects of design, but really I think it is the most important one of all. I do not know whether this theory will be discredited as too naughty, but I sometimes wonder if Corbusier was a functionalist. I think he was a great technologist and undoubtedly made a contribution to aesthetic thought, but I doubt if it went any further than that. I wonder if he did not do most of his work with his tongue in his cheek and whether he was sincere about function, because you cannot understand the purpose of a building until you feel that. There is an indication of a basic fault in his approach. He was a master of technique but has he failed in sincerity by not looking upon true function as a source of inspiration?

Mr. Basil Spence: That is a statement which is quite original. Le Corbusier is a very great artist but I have a feeling sometimes, when I look at his buildings, that he does a thing that he knows he has to do and then looks round for an idea to justify it.

Mr. Howard V. Lobb, C.B.E. [*F*]: I should just like to add a word of appreciation for what Mr. Basil Spence has told us and to ask a very ordinary question: what kind of camera did Mr. Spence use and can he tell us what the exposures were?

Mr. Basil Spence: I did not have a tripod. The camera I used is quite a cheap German one. For exposure I used a light meter. That is the only way, especially inside a church.

Mr. B. A. P. Winton Lewis [*F*]: I also would like to add my tribute to Mr. Spence for his paper. I think all the churches illustrated do more or less represent some aspect of the long tradition in church architecture.

All these buildings, I respectfully suggest, are on the monumental side. There is

another tradition, the tradition of the small village church, especially in this country but also in Switzerland, Italy, France and even Spain. They are very humble and very simple. One finds their quality in the little chapel at Bradford-on-Avon. Would there not be a place for the smaller church, the little church which one finds in many communities, which also will have that same elusive quality without necessarily recalling too closely the buildings of the past?

Mr. Basil Spence: I am certain that there exist some very beautiful simple little chapels. I know of one in Scandinavia which has that same intimacy and yet belongs to our age. I would also mention one which photographs very badly, and that is the Matisse chapel at Vence. It is an extraordinary one because it is lacking in any architectural snobbishness. Matisse, being a master, knew everything about light and he filtered light on to white walls until you felt you were walking from the outside world into the middle of a pearl. The only echo of that that I know is going into Chartres because there, when you walk from the outside to the inside, you get this feeling of passing from the ordinary world into another world. That can be the atmosphere demanded by quite a simple little nonconformist chapel. There is no doubt that the simplicity of form can manifest itself in the final form. I am sure it can be done, but I have chosen the monumental churches because they are such very good churches.

Mr. S. T. Walker [*F*]: I think the other illustrations which we have seen this evening are eclipsed by the approach that Basil Spence has made to Le Corbusier's church. I think the others will somehow recede to the background because if we are honest we will admit that we have been somewhat perturbed by the monochrome photographs and illustrations we have seen of that church. It was rather refreshing that Professor Spence was able to give us quite a new approach. Admittedly the photographs were in colour, which enabled us to see the paintings, so to speak, of the design, but I am still wondering, in spite of the attractive observations we have heard about it, what the worshippers feel about the church. I do not know whether we can find out whether people would feel that they wanted to go on their knees. Would one wish to worship there as one would in a Cotswold parish church?

Mr. Basil Spence: The speaker has made some most interesting observations about function. I do not think that the Le Corbusier church really functions inside. We saw no one praying in it. We saw people sitting down in the few pews supplied, but it must be remembered that this church is at the end of a long climb and there are very few seats about. I did ask the people in Switzerland what they thought of Le Corbusier's church and many of them were puzzled by the architecture. Many of them admired it as a piece of virtuosity, but they said, 'It does not work as well as the old one.' So far as the outside was concerned they were full of praise. I think the general feeling is that inside the church has not got that feeling of reverence and procession which one expects to find in a functional Roman Catholic church.

Mr. Alan Knapton, A.M.T.P.I. [*F*]: This church of Corbusier's is not one with which I am familiar and I was surprised to hear Professor Spence say that the walls were of stone. They seem more concrete-like. I wondered how they were finished because they are very white. Is it due to the fact that the photographs give a better impression than the subject itself or is the cement finished in some way which I could not follow? I also wondered whether the apse was not finished in concrete because it looked like it. I should like to know what the colours were inside.

Mr. Basil Spence: I do not think the photographs were an improvement on the building. In fact, I think the photographs were fairly accurate. I have been told, but I do not know if it is true, that Le Corbusier designed that church on a great frame and intended to have a metal mesh covered with concrete. He found it so expensive that he reverted to a stone building. I know it is built of stone because an assistant in my office visited it when it was half built. All the walls are stone. These stone walls start off at a great width and taper off to nothing. It was economic for that site. The stone was then plastered or rendered on the outside with cement rendering of concrete texture. It appears to be thrown on. It has the look of many of the old Scottish castles which have been painted and repainted with lime wash. It has that rich creamy look. I can certainly say that a great deal of stone was used in the construction.

The colour outside was all white with the exception of the little spots on the door. Inside it was all white with the exception of the chapel, which was red, and the roof itself, which was just the natural concrete. It was most impressive as a space. It is very simply stated. I do not think the photographs really do it justice. I advise the speaker to go and see it.

Mr. H. A. Hickson [*F*]: I have been wondering about the traditional idea of the dim religious light in connection with the Corbusier church. I am wondering whether the average person, if he came into a building which was brilliantly lit, would lose that sense of atmosphere. Would it take away from the average person the feeling he has become accustomed to?

Mr. Basil Spence: Actually Ronchamp is dimly lit. There is about the same intensity of light as, or slightly more than, at Chartres. We were there on three different days and they were all days of brilliant sunshine, but inside the church it was quite dark except for the dazzle of the window wall. When you got used to it you began to see the colours and the details of the interior. It was quite dark inside and yet somehow the interior did not speak to me in the same way that some of the old churches do or as the Matisse chapel does.

Mr. Paul Mauger, M.T.P.I. [*F*]: I have very much enjoyed the slides and the descriptions of these churches, but I should like to know what Mr. Spence felt about how those churches answered to the function of aural performance. For instance, was the sound of singing enhanced? Was the preacher audible? What are these large windowed churches in the streets of Basle like in relation to the noise of traffic? I should like to know how Mr. Spence feels that the ear takes to these modern churches.

Mr. Basil Spence: There was terrific resonance in the building at Ronchamp. I know because I stamped my feet and clapped my hands. I would say that singing would be extremely rich and enhanced. The pulpit is very high up and near the low end of the building and there is a possibility that the preacher would be quite audible, but of course it is the singing which is very important. I know they had great trouble at St. Antonius at Basle with acoustics, but on the other hand the acoustics in the other churches I have shown you are absolutely first rate, especially in Werner Moser's little church.

Mr. Anthony Blee (*Student*): I think I can add a little to what Professor Spence has already said about the construction of the Le Corbusier church. Le Corbusier intended that the construction should be tubular steel with wire mesh, but he gave up the idea because there was the stone of the previous church on the site, and there being no made-up road for taking up materials it was decided to use the materials which were already there.

I should like to ask about the statue of the Immaculate Virgin at Ronchamp which is seen from the inside and from outside. It is very much in evidence because on that wall there are such small apertures except where the statue stands. Perhaps Professor Spence would make some mention of the use of such a statue in the church by Corbusier.

Mr. Basil Spence: I did see the statue. It is not a beautiful one. It is supposed to be reversed when they use the outside altar but the back of the Virgin was hollowed out, I presume to make it easy to cast, and during the Mass they forgot to turn it round and you saw the hollow back. Even though in theory this should be compelling it seems insignificant. I felt that the idea of the stars and little apertures was an idea which just did not come off. I was disappointed.

The vote of thanks was put to the meeting with acclamation.

Mr. Basil Spence: Thank you very much for the very kind way you have received this talk. There is no doubt that the sympathy of the audience always encourages a speaker or otherwise and you have been a wonderfully sympathetic audience.

Professional Conduct in the Eighteenth and Nineteenth Centuries

By Barrington Kaye, B.Sc.(Econ.), Ph.D.

WHILE A generalised idea of conduct fitting for an architect is at least as old as the first English book on architecture,[1] the elaboration of a code of conduct waited upon the development of the concept of professionalism among architects, that is to say, upon their self-awareness as a group. During the 16th and 17th centuries, apart from the fact of their small numbers, the self-awareness of architects as distinct from master-masons and master-carpenters was too intimately bound up with the personalities of individuals to allow of the emergence of a professional feeling. The dependence of the majority of 18th-century architects upon either patronage or government service in the Office of Works[2] was a further impediment to any tendency to identify themselves with one another.[3] Under patronage, the architect's livelihood depended upon his relationship with his patron, towards whom he was expected to show a deference which often included, among other things, the willingness to act as 'ghost' for his patron's own architectural ventures.[4] In return he was entitled to expect full employment and a certain non-critical benevolence with regard to such works as his patron did not wish to have the say in or the repute of. That this position was tolerable to any but the meanest hack can be attributed to a variety of reasons: (i) the accord, during the middle of the 18th century, among patrons and architects alike, on what constituted architectural worth—i.e., some slight modification of Burlington's version of Palladian design; (ii) the social code of the *ton*, which, while approving of some degree of knowledge of architectural design according to Palladio on the part of a gentleman, did not allow of a too detailed acquaintance with 'the minute and mechanical parts of it';[5] (iii) the uncertain status of the architect himself, but lately divorced from the master-craftsman.[6]

The first stirrings of professionalism among architects occurred in the last decade of the 18th century, when the Architects' Club was founded[7] and when architects were at last emancipating themselves from their predecessors' dependence on patronage and were looking to municipalities, clubs and other corporate bodies for their commissions and to some extent to the newly-emerging moneyed bourgeoisie. With both these types of client, the architect was able to abandon the humble role necessary to patronage and to adopt a more equal contractual one.

This progress from status to contract, to borrow Sir Henry Maine's famous dictum, was not wholly to the architect's advantage however. It is true that it allowed him the dignity of artistic autonomy without fear of offending his patron, but it also meant the exchange of that non-critical benevolence referred to above for the harsher conditions of a free market economy. The architect now found it necessary to establish to the satisfaction of a prospective client not merely his technical and artistic competence but also his honesty and freedom from fraudulent intentions—in a word, his professional integrity.

The urge to devise rules of professional conduct may thus be seen as a response to the demands of economic necessity. In a *laissez faire* economy, the principle of *caveat emptor*, 'let the buyer beware', obtains, and the architect, if he is to sell his services, must convince the public of their value. During the first fifteen years of the 19th century the Napoleonic wars reduced building activity in England to a minimum, but with peace and an expanding economy in the throes of the Industrial Revolution came an unprecedented demand for the architect's services, and the architectural profession suddenly and rapidly

1. John Shute's well-known *The First & Chief Groundes of Architecture*, published in London in 1563, contains the injunction: 'It belongeth also to an Architect to haue sight in Philosophie, which teaching to be of a noble courage as Vitruuius saith, and also gentil, curtious, faithfull and modest, not geuen to auarice and filthy lucre, as not to be troubled or corrupted with rewardes or giftes, but with grauity and Sagenes to conceiue al honor and dignity in al thinges conseruinge his good name and estimation. Let him also take a charge of workes in hand, being desired and not desirous of workes.' Folio iii. (Facsimile edition published by Country Life in 1912.)
2. It has been left to John Summerson in *Architecture in Britain 1530–1830* (London 1953) to draw attention to the importance of the Office of Works in the development of English architecture. It cannot be said to have had any direct influence in the development of professionalism itself, however.
3. 'Men who are in that condition of personal subservience do not easily associate with their fellows. Association might seem to indicate a striving towards an independence that would be incompatible with the relation of client to patron.' A. M. Carr-Saunders and P. A. Wilson: *The Professions*, Oxford 1933, 300.
4. On the subject of architectural 'ghosts', see Sir Reginald Blomfield: *History of Renaissance Architecture in England*, London 1897, ii, 208, and an essay by E. S. Prior: 'The "Profession" and its Ghosts,' in R. Norman Shaw and T. G. Jackson (*Ed.*): *Architecture: A Profession or an Art*, London 1892.
5. Lord Chesterfield, writing to his son in 1749, observed: 'It would not be amiss, if you employed three or four days in learning the five Orders of Architecture, with their general proportions; and you may know all you need know of them in that time. . . . You may soon be acquainted with the considerable parts of civil architecture; and for the minute and mechanical parts of it, leave them to masons, bricklayers, and Lord Burlington; who has, to a certain degree, lessened himself by knowing them too well.' From the letters of 7 August and 17 October 1749. (John Bradshaw (*Ed.*): *Lord Chesterfield's Letters*, London 1892, i, 228 and 259.)
6. A divorce that is still the subject of controversy. Summerson describes Ralph Simons, an early 17th-century designer, as 'one of those artificers who were gradually creating the professional role of architect by taking a large view of the problems connected with building and ministering to the new taste for "regular" planning'. (*Op. cit.*, 109.) Whenever the process of separation began, it is clear that it was not complete until well on in the 19th century.
7. 'A profession can only be said to exist when there are bonds between the practitioners, and these bonds can take but one shape—that of formal association.' (Carr-Saunders and Wilson, *op cit.*, 298.) See Barrington Kaye: 'Early Architectural Societies and the Foundation of the R.I.B.A.,' R.I.B.A. JOURNAL, 1955, LXII, 497, for a description of the foundation and early activities of the Architects' Club. Its early concern with professional practice is shown in Mylne's resolution on the obligation of an architect, commissioned to finish a half-built house, to consult his predecessor in the work (see *ibid.*, footnote 5), and in the controversy over charges. A committee was appointed in 1795 to inquire into the question of professional charges. (Arthur T. Bolton: *The Portrait of Sir John Soane, R.A.*, London 1927, 76.) At a meeting of this committee, it was suggested that, in addition to the customary charge of 5 per cent of the total cost, a charge of 2½ per cent for taking out quantities should be made. This was strongly opposed by Soane, the only dissentient. 'His argument was that the cost of building equalled the increase to the diminished value of money that workmen were more expert and less supervision was required, while easier travelling made it possible to undertake more work.' (*Ibid.*, 76.) Soane himself attributed to the hostility his opposition aroused in his fellow-members the affair of the 'Modern Goth'. See *idem.*, and Kaye, *op. cit.*, 497.

increased, from probably less than a hundred at the turn of the century, to 1,675 recorded in the Census of 1841.[8]

There is little doubt that this increase in numbers represented a dilution in terms of quality. The opportunities for fraud, particularly those arising out of the architect's contact with the builder, were considerable, and by the eighteen-thirties public estimation of the architectural profession was at its lowest point. That this was not entirely without justification is indicated by an anonymous article in the first number of Loudon's ARCHITECTURAL MAGAZINE, founded in 1834, in which some of the grosser malpractices of the day were set forth:

'It is now the fashion among some of the principal architects, not to allow the builder to employ a surveyor to measure his work, but to insist upon the builder leaving it entirely to the architect's clerk, or to a surveyor named by him. . . .

'Another disgraceful practice, which is either owing to ignorance or knavery, is, that some architects deceive their employers, by making very pretty and attractive drawings, and reporting that the expense of carrying these into execution will be about half or two-thirds of what it actually turns out to be. . . .

'Another very paltry trick common among some architects is, their custom of exacting from the builder a commission for all works done under their direction; and, if this be refused, informing the builder that his services are no longer required.'[9]

The practice of employing 'measurers' was widespread, and caused many hard feelings among the architects of the day. It arose thus: the estimated cost of a house was often calculated by cubing the ground measurements at a standard rate per foot, according to the style. These standard rates were themselves calculated from houses already erected, and for which accounts were available. There was a clear temptation for the architect to underestimate the cost of construction in order to attract his client, as 'Scrutator' remarks. Since the builders were engaged on contracts according to the architect's estimates, they found it necessary to ensure that these estimates were correct, and to do so themselves employed a 'measurer' to measure the work in progress and check the architect's figures. These measurers soon found it to their advantage not merely to check the accuracy of the figures but on occasion to add to them where possible, thus increasing the builders' returns and their own commissions. It can be seen why any architect who was employed as a measurer was ostracised by his professional brethren, and why from the start surveyors were regarded with such suspicion.[10]

Another source of quick profits, and one that tended to bring the architect into disrepute, was that of speculative building. 'The speculative builder superseded the accomplished architect, and erected, for the nobility and gentry, rows of square boxes of brick or stucco houses as mansions, without any pretension to effective decoration or dignified aspect.'[11] When there was no professional responsibility to a client, where the relationship between the architect and the inhabitant of the house he designed lasted only for as long as it took to sign the deed of sale, and where there was every inducement to emphasise superficial qualities that would easily attract at the sacrifice of more solid and long-lasting virtues, it is not difficult to see why so many architects exercised the greater part of their talents in speculative building.

But it was in the private agreement between architect and building contractor that the greatest opportunities for fraud arose. Colvin, writing of those architects who practised before 1840, observed: '. . . there were few of them who had no connection with the building trade in one or other of its forms, from the Smiths of Warwick, who were builders first and architects last, to Sir Jeffry Wyatville, the "honourable augmentation" of whose name did not conceal the fact that he was descended from a typical 18th-century building family, or that he himself was "taken into a profitable partnership by John Armstrong, a large builder of Pimlico". Sir William Chambers was the contractor for, as well as the architect of, the houses which he built at Peper Hara and Roehampton, and most architects of his generation were prepared to submit an estimate upon which they obtained advances of money, making contracts with the tradesmen, and not infrequently taking a discount or percentage from them in addition to whatever remuneration they obtained from their employer.'[12]

The economic necessity for some guarantee of professional integrity at last stirred the architects into action, and in 1834 a series of meetings was held which ultimately resulted, in the same year, in the establishment of the R.I.B.A.[13] As has been shown elsewhere,[14] the crucial point of controversy during these preliminary meetings was the exclusion of measurers from membership of the Institute, and prominence was given, in the regulations, to the precautions taken against fraudulent practice.[15]

For some time the members of the R.I.B.A. were content to rely on their conditions of entry and the prestige of the Institute as a sufficient guarantee of professional integrity[16] but in 1845 a Committee on Professional Practice was set up to '. . . enquire as to the custom of architects in respect to professional charges and other matters connected with the practice of the profession, with such recommendations as they may think fit to ensure an uniformity in such proceedings. To establish an honourable remuneration for the professional man and at the same time to protect the employer.'[17]

The Committee found '. . . the most perfect unanimity to prevail amongst the members, on all the more important questions connected with the practice of the profession',[18] though what those questions were was not stated, a fact which brought editorial reproof from the BUILDER.[19]

The Committee recommended that the 5 per cent fee customary for architects[20] should be officially recognised by the Institute and in 1862 a set of charges incorporating that recommendation was adopted and issued.[21] In these the archi-

8. It was admitted in the Census for 1851 however, when nearly twice as many architects were reported, that 'Many of the 2,971 architects are undoubtedly builders: and here the want of a better nomenclature is felt; but it is sufficient to bear in mind, that in the arts, as in the learned professions, subordinate but necessary and highly useful classes also are associated with artists in the production of their work'. United Kingdom, Registrar-General: *Census of Great Britain*, 1851, London, 1854, i, population tables II.
9. 'Scrutator': 'On the Present State of the Professions of Architect and Surveyor, and of the Building Trade, in England,' ARCHITECTURAL MAGAZINE, 1834, I, 16.
10. The term 'measurer' was not confined to builders' measurers, it should be noted, but was often used to describe any quantity surveyor; in Scotland it was the usual term.
11. Professor Donaldson, writing in 1867; see R.I.B.A. TRANSACTIONS, 1867, XVII, 2.
12. H. M. Colvin: *Biographical Dictionary of English Architects*, 1660–1840, London 1954, 24.
13. See Kaye, *op. cit.*, 498–9, for details of these meetings.
14. *Idem.*
15. See the clause in the *Regulations* disqualifying measurers from membership, quoted in *ibid.*, 499.
16. Though in 1841 it was reported that 'Some valuable communications have also passed between this Council and that of the Institute of Irish Architects, relative to professional practice, in which they evinced a desire to act in conformity with ourselves; considering that such a course was calculated to uphold the respectability of the profession in general'. R.I.B.A.: *Annual Report* 1841, 14.
17. Quoted in Charles Woodward: 'Professional Practice', chapter of J. A. Gotch (Ed.): *The Growth and Work of the Royal Institute of British Architects, 1834–1934*, London, 1934, 117–18.
18. BUILDER, 1846, IV, 325.
19. See *Idem.*
20. At the meeting of the Committee on Architects' Charges of the Architects' Club in 1795, it was stated that the 5 per cent charge 'had remained the same as 100 years ago'. (See Bolton, *op. cit.*, 76.) Sir William Chambers received 5 per cent in 1777 for Somerset House, and the 1813 Commission of Inquiry into the Office of Works found that 5 per cent was then the customary charge. (See Woodward, *op. cit.*, 118.)
21. R.I.B.A.: *Professional Charges*, London, [1862]. This was not the first professional scale to be issued. The Institute of the Architects of Ireland published a schedule of architects' charges in 1840, the year following its foundation. The charges were 5 per cent for designs and superintendence; 1 per cent for detailed estimates; and travelling expenses at one shilling per mile. (Institute of the Architects of Ireland: [*Professional Charges*] (single folio sheet, no heading), Dublin, [1840].)

tect's duties were outlined: 'All of the following requirements for building are included in the ordinary charge of 5 per cent.: preliminary sketches; working drawings and specifications sufficient for an estimate and contract; detailed drawings and instructions for execution; general superintendence of works (exclusive of Clerk of the Works); examining and passing the accounts (exclusive of measuring and making out extras and omissions).'[22]

Provision was also made for the drawings to remain the property of the architect, thus seeking to prevent the widespread practice of commissioning one man to provide the designs and another to carry them out.[23]

No specific reference was made to professional conduct however, and at the General Conference of Architects of 1871 the subject of measuring remained a vexed one. Surveyors were, according to the President, admitted to the Institute as Associates, and those who had practised civil architecture for seven years as well were admissible as Fellows, but according to the bye-laws measuring for other than their own designs was expressly forbidden. Some of those present at the General Conference felt that architects should not be allowed even to take out their own quantities. '. . . the architect ought to be entirely independent of the money results of his buildings. An architect is brought into great temptation if it is made his interest to show that his work is completed cheaper than it ought to be; and that temptation exists when he takes out his own quantities.'[24]

However much the practice of employing separate quantity surveyors to cost architects' estimates may have been regarded as an ideal, it was apparent that it was impracticable, especially in country districts, where nearly all the architects combined their practice with that of surveying in order to earn a livelihood, and in any case it obviously opened the door wide to the old evils of measuring.[25]

In 1872 the *Professional Charges* of 1862 were revised and reissued.[26] The 1872 document consisted of 23 items, in one of which specific reference was made to professional conduct. 'The above payments alluded to in this document are to be made by the Employer to the Architect, who is not to receive commission or payment of any kind from the Builder, or any tradesman, in respect of works executed under the Architect's direction.'[27]

Apart from this clause, the question of professional conduct was left in the Institute to the provisions of the entry qualifications for membership. Cases of alleged misconduct were investigated by the Professional Practice Committee until 1869, when the Council took over this function, appointing a Professional Conduct Committee in 1886 to carry it out.[28]

The R.I.B.A.'s influence on the profession was still very precarious however, and there were no other sources of professional discipline.[29] It may be seen from the accompanying table that the percentage of the total architectural profession who were members of the Institute was less than 10 per cent in 1871, and it was still only 15 per cent by the turn of the century.[30]

Year	(*a*) Membership of the R.I.B.A.	(*b*) Architects in the Census	Percentage (*a*) of (*b*)
1841	153	1,675	9·1
1851	224	2,971	7·5
1861	338	3,843	8·8
1871	519	5,692	9·1
1881	787	6,896	11·4
1891	1,344	7,842	17·1
1901	1,649	10,781	15·3

Professional Membership of the R.I.B.A. as a Percentage of the Total Number of Architects in the Decennial Censuses, 1841–1901[31]

22. R.I.B.A.: *Professional Charges*, London [1862], item 15.
23. *Ibid.*, item 17.
24. R.I.B.A.: *General Conference of Architects* 1871. *Report of Proceedings*, London 1871, 23.
25. The problem of measuring continued to dog the professionals throughout the rest of the 19th century, and it is reflected, for example, in the difficulty in obtaining agreement with the builders over a form of contract. In 1870 a list of general conditions relating to building contracts, agreed to by the Professional Practice Committee of the Institute in consultation with the London Builders' Society, was issued, entitled *Heads of Conditions of Builders' Contract*. In subsequent revisions (in 1880 and 1895) however the builders would not agree to the clause for arbitration in the case of a contractor's claim for increased costs over the architect's estimates, and it was not until 1931 that agreement was ultimately reached. (See Woodward, *op. cit.*, 121–3.)
26. R.I.B.A.: *Professional Practice and Charges of Architects*, London 1872. Thirteen years later, the Secretary of the Institute wrote: 'A Schedule of Charges was formulated by the Institute in 1862, and confirmed at a general conference of practitioners. But subsequently the unhappy word "rules" was prefixed to that excellent document, in its modified form of ten years later. Utterances were made concerning the duty of every member, irrespective of age, class, or experience, to charge his clients not less than 5 per cent commission on executed works, and thereby adhere strictly to the terms of the orthodox schedule of rules. The inevitable accusation of genteel trade unionism might have been answered by a direct negative had not the corporate powers been exceeded, for the slightest acquaintance with the By-laws suffices to show that membership of the Institute, whether as Fellows or Associates, involves no obligations upon them other than those of honourable dealing in matters of business entrusted to their charge, and in the interest more even of their employers than of themselves.' (William H. White: *The Past, Present, and Future of the Architectural Profession*, London, 1885, 13–14.)
27. R.I.B.A.: *Professional Practice and Charges of Architects*, *op. cit.*
28. See Woodward, *op. cit.*, 124.
29. There was no lack of commentators, however. For scattered comments on professional conduct see, among others: *Report from the Commissioners of Inquiry into the Conduct of Business in the Office of Works*, London, Parliamentary Paper, 1813; James Elmes: *A Practical Treatise on Architectural Jurisprudence*, London 1827; 'On the Present State of the Professions of Architect and Surveyor, and of the Building Trade, in England,' ARCHITECTURAL MAGAZINE, 1834, I, 12–16; James Noble: *The Professional Practice of Architects*, London 1836; T. L. Walker: *An Essay on Architectural Practice*, London 1841; G. Godwin: 'Architecture as a Fine Art; its State and Prospects in England,' CIVIL ENGINEER AND ARCHITECT'S JOURNAL, 1841, IV, 338–9; J. H. Chamberlain: *An Introductory Lecture . . . on the Office and Duties of Architecture*, Birmingham 1858; T. R. Smith: 'On Entering Architectural Practice,' BUILDER, 1861, XIX, 857, 872; E. I. Bell: 'On the Criticism of Architecture,' R.I.B.A. TRANSACTIONS, 1869, XIX, 148–60; T. R. Smith: 'On Professional Esprit de Corps,' R.I.B.A. TRANSACTIONS, 1872, XXIII, 19–35; Charles Barry: 'Opening Address of the President,' *ibid.*, 1877, XXVII, 114; T. C. Clarke: 'Popular Criticism as Applied to the Architectural Profession,' *ibid.*, 1878, XXVIII, 240–6; Arthur Cates: 'The Duties, Obligations and Mutual Relations of Architect, Client and Contractor . . .,' *ibid.*, 1884, XXXIV, 175–89; R. Norman Shaw and T. G. Jackson (Ed.): *Architecture: a Profession or an Art*, London 1892; Robert Kerr: *Consulting Architect*, London 1886, and 'Observations on the Architect's Functions in relation to Building Contracts,' R.I.B.A. TRANSACTIONS, 1887, New Series III, 128–40.
30. It rose rapidly thereafter, however; by 1931 the total professional membership of the R.I.B.A. was 6,591 or 71·3 per cent of the number of architects recorded in the Census of that year. But see qualifications in next footnote.
31. Figures compiled from (*a*) the *Annual Reports* of the R.I.B.A., and (*b*) the population tables of the decennial *Censuses of England and Wales* (at first, *of Great Britain*). Notice the tendency to overestimate the percentage as a result of (i) the limitation of the Census figures to England and Wales after 1851, and (ii) the inclusion of other than English and Welsh architects in the membership of the Institute, particularly after 1881.

Except for a few well-known names, the architects of the 19th century appear to have remained highly suspect figures with the public at large. In 1889 it was on the whole true that '. . . the common popular feeling towards the architectural profession is a feeling of distrust',[32] and neither the writings of Emett nor the profession or art controversy that broke out two years later did anything to enhance this reputation.[33] This distrust, the cumulative effects of a century of *laissez-faire*, and the great depression, all gave weight to the professional viewpoint and by 1901, when the Institute at last issued the Code of Professional Conduct, even the most recalcitrant artist-architects had been persuaded that the only way to fulfil the founders' aim of 'establishing an uniformity and respectability of practice in the profession'[34] was by statutory registration, and a policy to this effect was formally adopted by the R.I.B.A. in 1906.

32. 'Are We Just to our Architects?' THE CENTURY ILLUSTRATED Monthly Magazine, January 1889, XXXVII, pt. iii.
33. For a selection of his articles, see John T. Emett: *Six Essays*, London 1891. The profession or art controversy was brought to the notice of the public in 1891 by a memorial addressed to the R.I.B.A., published in THE TIMES, and signed by over seventy eminent names, among them those of Norman Shaw, Bodley, Lethaby, Webb, Madox Brown, Burne-Jones, Holman Hunt and William Morris, protesting against the 'attempt to make architecture a close profession' by the introduction of a Registration Bill into Parliament (THE TIMES, 3 March 1891). It may be noted in passing that the Institute did not in fact support the Bill. See Norman Shaw and T. G. Jackson, *op. cit.*, for the literary highlight of the controversy; Sir Reginald Blomfield: *Memoirs of an Architect*, London 1932, for a history of the affair from the point of view of one of the protagonists, and for the full text of the memorial; and Goodhart-Rendel's 'The Architect Today', R.I.B.A. JOURNAL, 1937, XLIV, 865, for a witty summary of it.
34. From the *Address of the Institute of British Architects, explanatory of their views and objects . . .*, London 1834, 7.

Officers' Mess, 1932

Building for the Army

By C. A. Richards, O.B.E. [*A*]

Superintending Architect, War Office

THE WAR DEPARTMENT, as distinct from the Ministry of Defence, Admiralty and Air Ministry, spends annually some £15 million on major architectural and civil engineering building projects, with a further £2½ million on minor works and £15 million on maintenance. It is therefore one of the biggest building departments in existence. Little is known to the general public of this since in common with the other Service Departments a certain reticence is necessary on the grounds of security. In point of fact the amount spent on secret defence works, bomb-proof hush-hush buildings and the like is quite small and is not widespread. The bulk of the Department's building activities are of the ordinary common-or-garden kind, familiar to everybody though possibly hiding behind such peculiar names as Ordnance Depot, Sergeants' Mess, Junior Ranks' Club, Battalion H.Q., N.A.A.F.I. Shop or Military Corrective Establishment. These are just warehouses, hostels, community centres, offices, grocers' shops and prisons to the ordinary person. But as widespread detailed information on the Army's buildings might in certain circumstances provide data on which to estimate the strategy of our armed forces, a discreet veil is often drawn around the Department's building activities.

One may well ask: 'Why all this expenditure of public money on buildings? There are many existing barracks. Use those and a few tents, and spend the money on tanks and modern weapons.' The answer to this is fourfold.

First, the Army is bigger than and strategically differently disposed from heretofore. Pre-war, a large part of the Army was stationed in India, which formed our Far Eastern base. The loss of this has meant the redeployment of troops elsewhere, including, but for another reason, Germany. More recently, the evacuation of the Canal Zone has caused similar disturbances.

Secondly, the huge mass of highly intricate weapons and vehicles developed from 1915 onwards, and so essential to the modern army, must be properly accommodated and preserved from deterioration. Vast workshops are also required to maintain the equipment in daily use. And of course much of the training to teach the soldier to use and understand the more complicated items must be carried on in suitable classrooms and instruction sheds.

Thirdly, and surprisingly to some people, the soldier is a human being and subject to all the ordinary human handicaps and advantages like boredom, a wife, influenza, loneliness, children, prickly heat and creative urges. He and his family must be properly housed and provided with normal amenities like the rest of us. Many are still condemned to Nissen huts, tents and the like.

Fourthly, many existing barracks are now very old and suffering from long periods of financial stringency, when nothing could be done to improve them. Hospitals and many married quarters are pitifully out-of-date and sordid. Many

amenities which today are realised to be necessary for the welfare of the troops and their families are non-existent. It is interesting to note that an officers' mess at Chichester, built as a temporary building of timber by French prisoners of war during the Napoleonic wars, was in use for its original purpose until two years ago, when it was destroyed by fire.

Let there be no alarm that the Army is squandering public money on luxurious living out of proportion to its needs. The Treasury not only holds the purse strings, but also investigates every project in considerable detail both from the viewpoint of necessity and cost.

How does the War Department go about getting these things built? First an enormous amount of administrative work is necessary to formulate the scales of accommodation and entitlement, reconciling the various projects to the firm strategical deployment of the Army and in preparing financial statements and forecasts of expenditure. This work is done by military staffs of all arms advised by permanent civil servants, both in the War Office and at the various Command and District Headquarters. The executive side of building is carried out by the Royal Engineers Works Services, a widespread organisation with branches and sub-branches working in or in conjunction with the various military garrisons which they serve, both at home and in overseas stations. This organisation forms the peacetime training-ground and nucleus which expands in war to carry out works for the Army and sometimes for the other Services and allies, both in base areas and in forward fighting zones. It is responsible for producing the necessary architectural and engineering designs, bills of quantities and contract documents, and provides the detailed supervision of the works and deals with the accounts. The bulk of the construction itself is done by civilian building and engineering contractors.

The Works Services organisation is an integrated one, comprising both military and civilian personnel working side by side. There are very few hard-and-fast lines drawn between the military and civilian posts, but broadly the higher grades with the more generalised and administrative duties are Royal Engineers and the more technical posts are civilian; most of the appointments could be either. At the War Office itself the architectural and civil engineering branches are entirely civilian. The whole of the civilian side of the organisation is part of the Civil Service, recruited, paid and administered in the same way as normal civilian government departments, with whom there is the usual interchangeability. There are architects from the Ministries of Works and Health now serving in the War Office, and on occasions some have transferred from the War Office to the civilian ministries.

The general public and indeed many who are closely associated with building are unaware that the Army has anything to do with building. Surprise is frequently expressed that the War Office should employ a permanent staff of architects. In this country the Army and other Services share many of the civilian amenities such as cinemas, schools and shops, and it is general policy that this should be done as far as possible everywhere. We know of the odd garrison church or groups of married quarters, but it is mainly those who have lived abroad who have experienced the full implications of accommodating the Army. In India for instance the military town or cantonment was more commonplace, where everything from the roads, power stations, water supplies and sewers (if any) to the church, barbers' and tailors' shops, children's schools, hospitals and theatres were built and run by the Army. This is not a thing of the past. Some half a dozen complete minor townships are now being built, varying from the development of existing places such as Catterick and Gibraltar in accordance with comprehensive town planning schemes to entirely new towns on virgin sites in Germany, Cyprus and Malaya. These are in addition to large programme services of building new and modernising old married quarters, both in houses and flats, the reconstruction and modernising of barracks and hospitals, and the development and extension of storage depots and workshops.

Thus the extent and variety of design work required by both architects and engineers probably surpasses that of any other building organisation. The architectural and engineering departments of the War Office, comprising some 70 architects, 35 structural and civil engineers and 45 electrical, heating and ventilating engineers and their assistants are responsible for producing a high proportion of the designs; much is done by both civilian and military experts in Command and District Headquarters, and what cannot be tackled departmentally is done by town-planners, architects and consulting engineers in private practice.

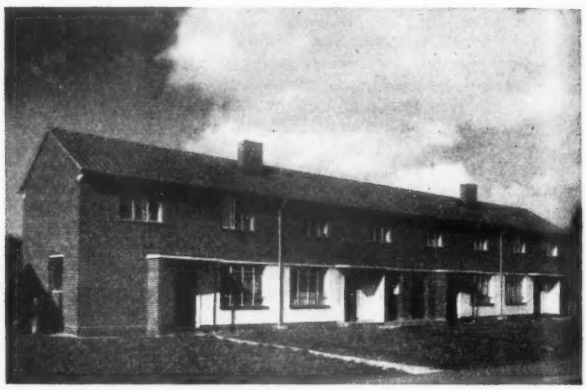
Sergeants' Mess, 1949

Before discussing details of current building work, it would be interesting to give some examples of the past heritage of the Army. Soldiers were once accommodated in the old mediaeval castles, and in many cases barracks were subsequently built adjacent to them. The establishment of permanent armed forces, the development of the Regimental system and the high prestige of the Army after the Napoleonic Wars seem to have been the factors which spurred on building work, and numbers of new barracks were built in the last century. These appear to have been built mostly in the local style, no doubt by local architects, and have been added to and altered from time to time. They now fall short of modern standards of light and air and sanitary convenience, lack many of the training, educational and welfare facilities considered necessary, and above all have received exceptionally hard wear. Those built for cavalry units now often have men sleeping in the stables. Frequently blocks of married quarters of low standards of accommodation were built within the barracks and are surrounded with later additions of garages and workshops, where the children play among the tanks and drums of oil. Perhaps the most interesting barracks were the throwbacks to mediaeval times, where fortresses were constructed to house the new powerful guns and to provide massive protection from assault of various kinds. The perfect little star-shaped fort of Landguard, protecting Harwich Harbour, is a good example, although the guns have long since been moved to emplacements outside the walls. One of the largest was Fort William in Calcutta on the banks of the Hooghly river, with its intricate system of redoubts and bastions; a vast prickly circle containing a complete town within

Married Officers' Quarters, 1952

Married Officers' Quarters, 1952

Standard Barrack Block, 1953



Married Soldiers' Quarters, 1953

its ramparts, including a waterworks, swimming bath, theatres, spacious barracks and messes and pleasant tree-lined avenues.

Nearer home we have some fine examples of 18th and 19th-century military architecture. The Duke of York's Territorial Army Headquarters in Chelsea was begun about 1801 by J. Sanders, architect, and has recently received a handsome addition designed by H. J. H. Dicksee [*F*]. Woolwich, where considerable rebuilding began in the 18th century, contains the stupendous 1,000 ft. long façade of the Royal Artillery Depot (about 1775 to 1800). When the paint is fresh and the spring sunshine favourable, this is a beautiful sight. There is also the old Royal Military Academy (1805 to 1808) designed by James Wyatt in the baronial castle style, with its startling chapel by Major Hemming, R.E. (1902). The original Royal Military College of Sandhurst, also by James Wyatt but in the classical style, was completed in 1810 and has a dignity and powerful simplicity which seems to provide the perfect expression of military architecture. It stands in spacious and beautiful grounds with its more recent neighbour, the Edwardian red brick and stone New College. If and when the third college of what is now the Royal Military Academy comes to be built, the group should provide a fascinating study of three centuries of architectural development. These are some of the old gems. There were as many or more monstrosities, such as Chelsea Barracks. Some barracks are reputed to have been built as prisons in the first place, and later altered (apparently with very little effort!) for the accommodation of soldiers.

The decade prior to 1939 produced an interesting development, known as the Sandhurst Block (the connection with Sandhurst is rather obscure). Under the able hand of W. A. Ross, C.B.E. [*F*], the War Office architect, this type of composite barrack block, housing a complete battalion with its dining room, kitchen, etc., virtually under one roof, and attendant officers' and sergeants' messes to match, was built in various stations. The style was neo-Georgian, well handled and dignified. The last one to be built was at Kitchener Barracks, Chatham; only half had been built when work had to be abandoned in 1940, but it was re-started and is now completed to a slightly modified design. This monumental type of building has now been superseded for two main reasons. First, such a vast building was impersonal and 'institutional' in character and not liked by the troops on that score; and secondly, the problem of having to modernise large numbers of old barracks after the war demanded the adoption of independent unit buildings. Whereas the Sandhurst Block would require the complete clearance of the site prior to building, it is often possible to retain some of the old buildings which are structurally sound and capable of modernisation, and intersperse them with new unit buildings as required to make up the deficiencies. The work can be phased so as to allow for continuous occupation of the barracks during rebuilding. Thus the modern barracks comprises a group of comparatively small buildings.

It may be of interest to describe the kind of accommodation now being provided for typical military units. A proportion of the personnel is assumed to be married, and these live out with their families in married quarters estates, normally divided into officers' and other-ranks' groups. Soldiers get semi-detached or terrace houses with two or three bedrooms; officers' houses vary from a semi-detached three-bedroom type, for subalterns and captains with small families, up to houses with four or five bedrooms plus dressing room and study for senior officers. The barracks themselves are controlled by a guard-house, which includes detention cells for the temporary custody of those who misbehave. The unmarried officers

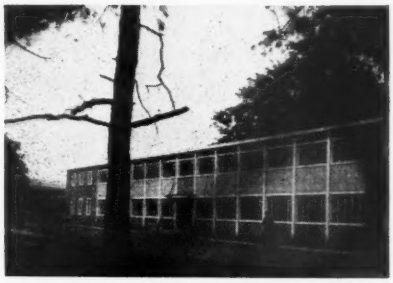
and sergeants live in separate messes, which are to all intents and purposes hotels. They contain a suite of living rooms on the ground floor and single bedrooms upstairs, graded in size according to the rank of the occupant. The ordinary soldier sleeps in a dormitory of 8 men, corporals being provided with separate rooms. The dormitory barrack blocks are normally of two or three floors, sleeping 72 or 108 men in each, with communal sanitary facilities and a sitting room. The dining room and kitchen form a separate building on the cafeteria principle. In addition to this, a Junior Ranks Club or N.A.A.F.I. is provided, including lounges, restaurants, bars, games and reading and writing rooms; this is furnished and staffed by the Navy, Army and Air Force Institute out of profits received from the sale of food and drink, and is the soldiers' main recreational centre. Another important building is the education and instruction block, where both academic and technical instruction are given. In this building a church room is provided for quiet meditation.

The parade ground forms the main centre of the layout, and near it are grouped the barrack blocks and dining rooms, and separate regimental and company office blocks. Other administrative buildings include the Quartermaster's stores (where food, clothing, furniture and bedding are kept), technical stores (for specialist arms and equipment) and tradesmen's workshops (for the Unit pioneers, carpenters, tailors, shoemaker, etc.). The garage area is important. A battalion or regiment possesses some 100 vehicles, from motor-cycles, staff cars, jeeps and lorries to the various fighting vehicles and guns. They must be protected from deterioration and pilfering, and a small workshop is provided for routine maintenance. Major repairs would be done in central garrison or base workshops. Other buildings would include the central boiler-house, a shed for fire-fighting equipment, a medical centre, a band practice room, rifle ranges, a grocery shop for the married families and gymnasium. Football, cricket and hockey pitches and tennis courts are provided for physical recreation.

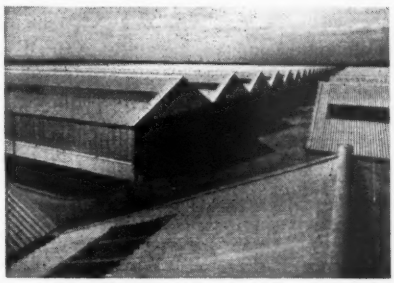
The planning of all these is based on scales of accommodation worked out in detail to suit barracks of any size. Standard designs for the more common requirements are prepared in the War Office, and these are used where reasonably possible.

The siting of a barracks depends on the function of the unit to occupy them. They should preferably be within easy reach of a town, where both families and soldiers can avail themselves of the shops, cinemas, churches and other activities. While barracks for specialist administrative units would be sited adjacent to the depot or installation which they serve, those for fighting force units must be reasonably near training-grounds, where military exercises and manœuvres can regularly be practised. Such centres as Aldershot, Tidworth and Catterick have developed on this basis. The latter, being largely a hutting affair grown up in times of war,

Completion of Pre-War Sandhurst Block, 1952



Stores Depot Office Block, 1954



Depot Store Sheds, 1953

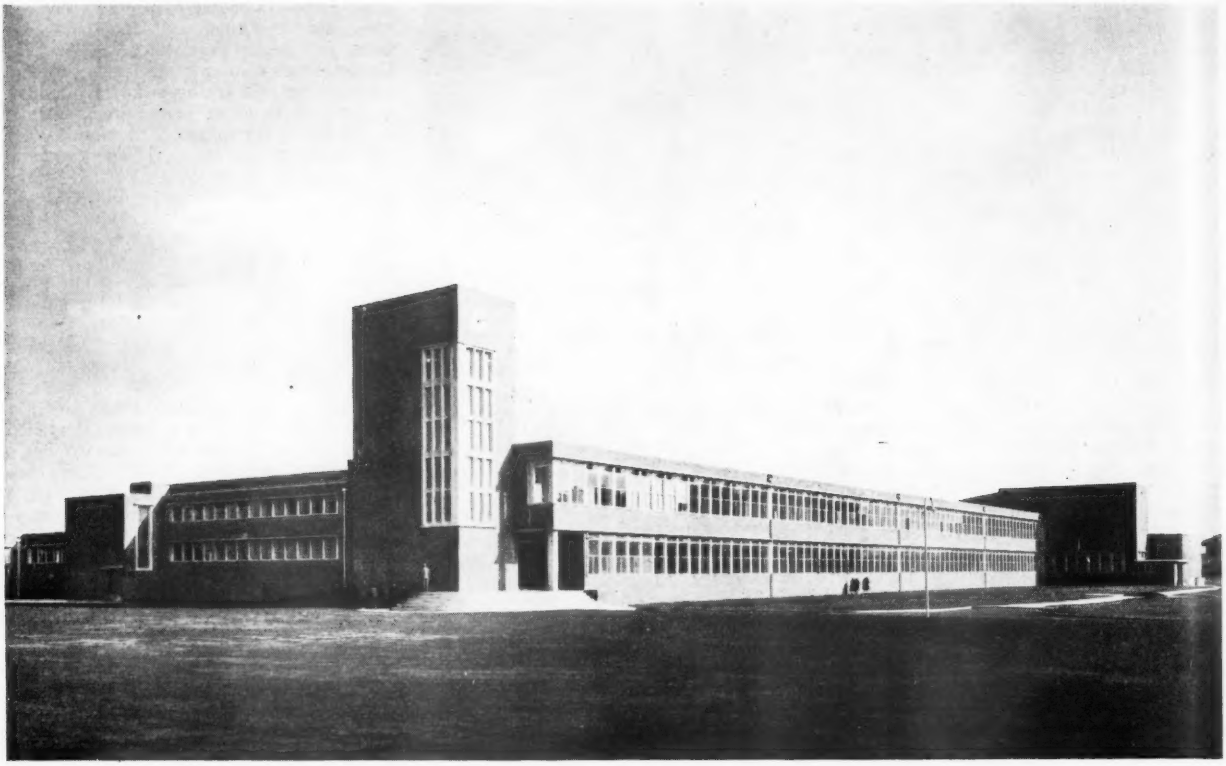
is now being town-planned for its permanent development over the next two or three decades. In these and similar cases the civilian towns have grown up around the barracks. In the initial absence of civilian amenities, certain garrison facilities have been provided in the shape of churches, cinemas, libraries and so on by the War Department, and roads, sewers and public utilities are sometimes still maintained by the Army. The whole growth, life and prosperity of the town depend upon the military.

Storage depots and their attendant living accommodation are mainly sited within the circle of the great manufacturing towns where the equipment and arms are made, both road and rail communication being essential. Petrol depots would normally be sited in relation to port facilities. The normal depot contains both sheds and open stacking yards. The labour is mainly civilian, and therefore the provisions of the Factories Acts must be observed. An interesting new addition to an engineer stores depot is a Bailey bridge preservation plant, where the bridging girders and other parts will be overhauled and repaired after use, de-rusted and repainted and thus completely renovated. The War Department's responsibility for storing and maintaining military arms and equipment is confined to those items already issued to the Army for its use. The manufacture and development of new weapons and equipment are normally carried on by the Ministry of Supply under military advice, and are therefore outside the scope of the War Department's building activities.

After the war the first building priority was to provide additional married quarters for the soldiers' families and for certain essential civilian employees of the Department. In the United Kingdom some 8,500 quarters have already been completed out of a target of about 10,000. In overseas stations in Germany, the Middle and Far East, about 9,000 have been completed and work has begun or is due to begin shortly on a further 5,000. These are mostly houses, a few being flats and a small proportion in temporary construction. The numbers in the U.K. include some 2,000 prefabricated houses by 10 different manufacturers and a further 400 overseas. A programme for the modernisation of out-of-date quarters on similar lines to those under the Housing Acts is now beginning.

The second priority was to re-house the soldier himself in better barracks. This objective was deflected by the Cold War when some 11 million sq. ft. of covered storage accommodation for weapons and equipment coming out of the factories had to be built instead. In the course of this work, considerable and valuable research was done by the War Office structural engineers into the most economical forms of construction and design for store sheds, particularly taking into account the current shortages of vital materials. It was appreciated that a method which could show a saving of threepence a sq. ft. would save the taxpayer over £100,000. Some account of this work has already been published in the JOURNAL OF THE INSTITUTE OF STRUCTURAL ENGINEERS.

The work on barracks and the modernisation or construction of new hospitals is now getting into its stride and the tempo of construction is likely to increase. Some 150 permanent barrack blocks to house about 13,000 men have been completed or are already in course of construction at home and abroad, excluding Germany where there are many more. Numbers of messes are also being built. One new hospital has been completed and two more are under way in the Middle East, and five hospitals are being planned elsewhere. This wide variety of buildings in all kinds of climate, carried out by labour of all colours, creeds and capabilities, is a vastly fascinating subject.



Denbighshire Technical College, Wrexham

Architects: Messrs. Saxon, Smith and Partners

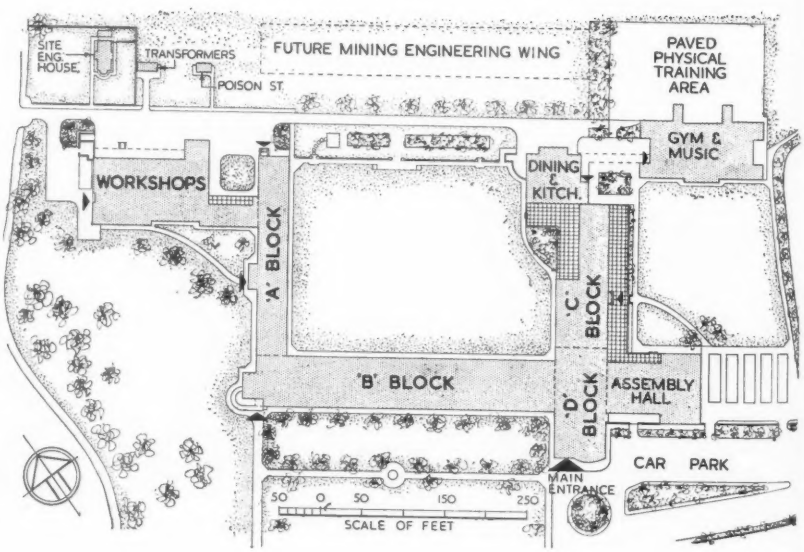
(F. Charles Saxon [*F*] and R. Vernon Smith [*A*])

THE R.I.B.A. Architecture Bronze Medal in the area of the Liverpool Architectural Society for the three-year period ending 31 December 1953 was awarded to Denbighshire Technical College, Wrexham.

Originally the college was established at Wrexham in 1927, but by 1931 the increase in the number of students and the scope of the work necessitated the building of new laboratories and workshops. Extensions which cost £34,000 to construct and equip were opened in 1932, when it was announced that the aim of the Denbighshire authority was to provide facilities not only for Denbighshire and Flintshire but as far as possible for the whole of North Wales.

By 1939 plans for a new building were ready to go out to tender but were held up. After the war conditions had changed and the Wrexham Education Authority, with the approval of the Ministry of Education, bought a site of 28 acres of land adjoining Wrexham racecourse as a site for the new college. The architects were Messrs. Saxon, Smith & Partners [*F*/*A*] and the contractors Messrs. Holland & Hannen and Cubitts Ltd.

The foundation stones were laid in October 1950, and on 11 November 1953



the new technical college was opened by H.R.H. The Duchess of Gloucester. The cost was about £550,000.

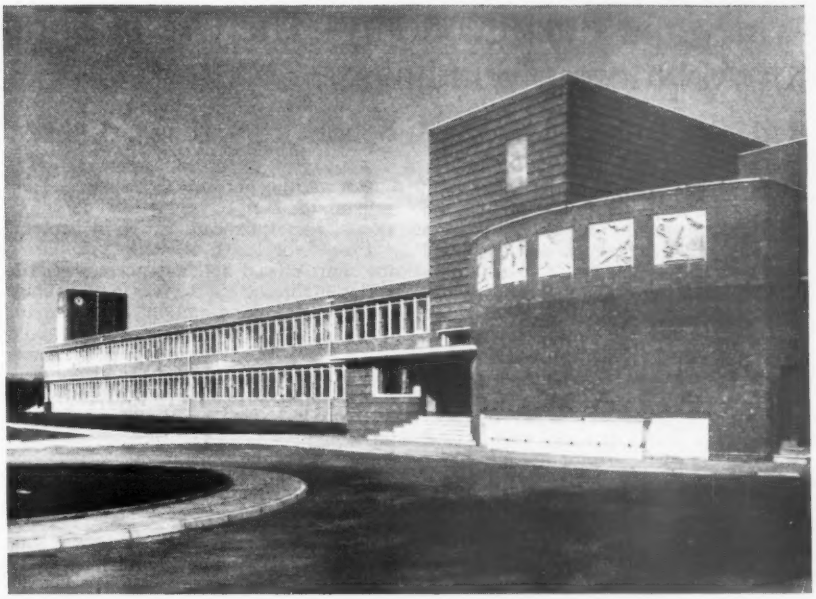
The college is situated in a mining area and under the site itself there is a disused mine; subsidence was therefore a possibility and to minimise this special foundations were designed, consisting of 4 ft. 6 in. deep inverted 'T' beams and 2 ft. 6 in. wide foundation slabs; thus the load from the columns is distributed.

The general construction is in reinforced concrete and 11 in. cavity walls of warm-coloured facing bricks and breeze block inner leaves, but steel frame has been employed for the assembly hall, gymnasium, workshops and the tower. Most of the first floors and the flat roofs have been formed with in situ concrete troughs spanning 26 ft. from the outer wall beams to the corridor beams.

Partitions are of the non-load-bearing type, carried out in breeze blocks. The flat roofs have been formed with foamed slag screeds and rock asphalt topped with white spar chippings. Reinforced concrete shell construction has been used where north lighting is required.

Special attention has been given to the question of noise from one department disturbing the occupants of others; to prevent this the gymnasium and music rooms have been grouped together at the rear of the site, and the building department, with its workshops and building science laboratory, occupies a separate block. Acoustic tiles and rubber pavings in the corridors are some of the other means towards ensuring quietness.

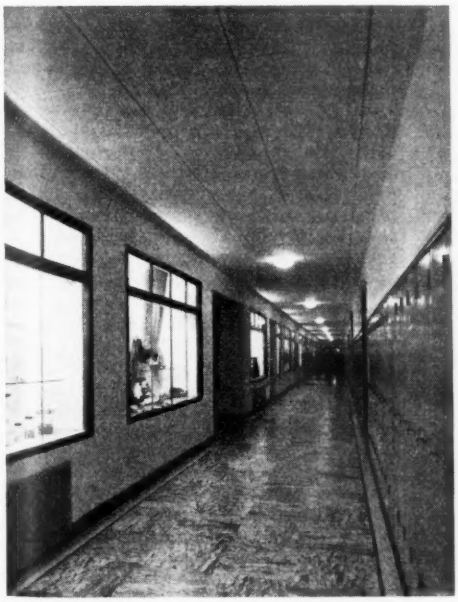
In planning the run of the service pipes the object was to hide them as far as possible; ducts have been provided under and over the corridors and suspended ceilings over the rooms. The space above the corridors has also been used to accommodate the ventilation ducts in connection with the mechanical ventilating system with its extract grilles in the classrooms. On the corridor walls sound absorbent dampers have been used.



The Main Entrance

The assembly hall is intended to be a multi-purpose hall; the floor is sloping, with adjustable seats, and to ensure good conditions for speech and music the proscenium and the side walls have been furnished with plywood panelling to give the necessary resonance; the proscenium splays act as reflectors and acoustic plaster provides absorption.

The floors are mostly finished with beechwood blocks in the classrooms, mahogany blocks in the workshops and teak blocks in the laboratories. On the stage and in the gymnasium oak strip has been used. The common rooms and adjoining corridors have been finished with Gurjun strip floors on wood battens resting on hair-felt to give some resilience. Rubber tiles have been laid as flooring to the corridors, assembly hall gangways, the library and other principal rooms. Thermoplastic tiles and terrazzo tiles have been used elsewhere.



Internal Corridor

The Entrance Hall

Water and Fuel Economy—The Use of Spray Taps for Ablution in Buildings

By J. Crisp, A.M.I.E.E., and A. Sobolev, B.Sc.(Eng.), A.M.I.Mech.E., A.M.I.Struct.E.

IN RECENT MONTHS attention has been urgently drawn in scientific journals[1] and the general press to the water problem in Great Britain, and the recent drought added emphasis. The rate of water consumption in this country is rapidly rising, partly because of the rising standard of living but mainly because of the increasing demands of industry. The problem of meeting this consumption is complicated since policy, supply, distribution and conservation are all concerned. However, as in the fuel problem, one obviously useful step to take is to explore means of economising in the use of water.

It was with the hope of achieving economies in water, fuel and, possibly, installation, that the Building Research Station, as part of its plumbing research programme, began some time ago, with the co-operation of the Ministry of Works, an investigation into the effects of substituting spray taps (supplying blended hot and cold water) for the normal pillar taps used for ablution in office buildings.

A large office building accommodating a staff of over a thousand, of which about two-thirds were men, was chosen for this purpose. The investigation consisted of a pilot study followed by a main study. During the course of the main study, water consumptions throughout the building were measured, spray taps were introduced in selected lavatories, tap usages were recorded and discussions were held with staff.

The present note deals with water and fuel economy aspects. A considerable amount of additional information relating to lavatory usage was, however, also obtained.

1. Water Consumption (with fully normal supply, i.e. no provision for sprays). In addition to the existing main meter, which measured the total water consumption for the building as a whole, some 70 secondary meters were distributed throughout the building to enable the consumptions of both hot and cold water to be measured in each of the 23 lavatories (14 men's and 9 women's).

The result shows an average weekly total water consumption for the building of 83,000 gallons used as in Table I.

It follows from Table I that the annual total consumption of water for washing purposes in this office block is over one million gallons, representing about one-quarter of the total consumption for the building for all purposes. The annual requirement of hot water for washing is about 830,000 gallons, and for cleaning about 31,000 gallons. This water was provided at a mean temperature of about 140° F., and required the consumption of some 55 tons of fuel.

[1] NATURE, Vol. 176, 17 December 1955, p. 1133.

For washing purposes, both personal and general, the average weekly total consumption of water per head is given in Table II.

Except for lower consumptions during the short official holidays there was little variation throughout the year in the average weekly total consumption of water for washing, although the proportion of cold water used was greater in summer than in winter. Allowing for the different numbers of staff on the various floors, there was also little variation amongst the 14 men's lavatories and 9 women's lavatories, except for 2 men's lavatories and 2 women's lavatories where conditions were known to be abnormal.

2. Pilot Experiment with a Spray Tap Installation. In order to determine the likely order of savings, if any, and the factors likely to affect the success of a spray installation, spray taps were substituted for the normal pillar taps in one men's and one women's lavatories and the basin plugs removed. The taps were supplied with blended water through a thermostatic mixing valve set for 105° F. Because of certain technical difficulties of operating such valves at the low rates of flow used, the temperature of the blended water varied on occasion by some 5° to 10° F., and as a result users actually experienced a range of temperatures during the trials. The rate of flow of water was controlled by needle valves on the taps and was varied during the experiment from 2 to 6 pints per minute.

During these trials, which lasted for about 12 months, consumption of hot and cold water and of fuel were measured, spot records of water temperatures were taken, and interviews held with staff.

The results were encouraging. The measurements showed that substantial savings (of the order of 50 per cent) in both water and fuel could be achieved with spray taps. The discussions with staff however suggested that although the idea of using sprays was not unacceptable the pilot installation suffered from certain disadvantages, both technical and in design, which would have to be avoided if any new installation were to be wholly popular.

Accordingly, modifications were introduced and a new main experiment began early in 1955. This experiment has just been completed after a run of one year.

3. The Main Experiment. Two lavatories were chosen for spray installations as in the pilot experiment. In the men's lavatory, which had five wash-basins, four were again equipped with sprays and were without plugs, whilst one was retained as a 'normal' basin, being fitted with a plug and with two pillar taps supplying hot and cold water. It was thus possible for staff to use sprays or to fill a wash-basin or to obtain cold water. The spray taps, subject again to certain technical difficulties, again supplied blended water at a temperature of about 105° F., and at a rate of 4 to 5 pints per minute. To obtain more factual data on usage than in the pilot experiment, all taps were fitted with unobtrusive electrical contacts and continuous records of usage taken. The women's lavatory, containing six wash-basins, was similarly equipped, one basin being retained for normal supply. Fig. 1 shows the general arrangement in this lavatory; the spray taps used were modified versions of Messrs. Bourner's 'Supataps'. Two lavatories (one men's and one women's) on neighbouring floors served as controls in the experiment. They were fully normal but were instrumented and records kept as for the two spray lavatories.

In addition to the keeping of instrumental records, spot visual checks of wash-basin usage were made throughout the building, questionnaires were circulated to the staff using the two spray lavatories and interviews held with them.

Results. The questionnaires and interviews yielded much useful information on experience and preferences. Water flow rates of 4 to 5 pints per minute and a blended water temperature of about 105° F. were acceptable. About 50 per cent men and 70 per cent women expressed a pre-

Table I

Purposes	Total Weekly Consumption (gallons)
Washing	22,000 (16,000 hot, 6,000 cold)
Cleaning	800 (600 hot, 200 cold)
W.C. Flushing	35,800
Urinal Flushing	17,000
Canteen, etc. (by difference from mains total)	7,400
Total	83,000

ference for washing by sprays. The instrumental records showed that the sprays were often in use when the normal basin was not in use, indicating no excessive demand in practice for the normal supply. There was evidence that the normal basin was preferred for other than personal washing (e.g. crockery). There was definite satisfaction with the additional provision of a normal supply in the spray suites. There was no expressed wish to vary the rate of flow but some staff wanted to be able to control the temperature of the blended water.

It was possible to evaluate the average usage of wash-basins per head and the related consumption of hot and cold water in both control (normal) and spray lavatories. The results expressed in terms of weekly consumption per head are given in Table II.

From this and other data available it is possible to estimate the weekly consumptions for the whole building for the two alternative water supply methods in question, viz.: suites of normal wash-basins, or suites of wash-basins provided with sprays only except for one basin, in each suite, which has a normal supply. The results including savings are given in Table III.

It will be noted from Table III that in the normal suites the ratio of hot to cold water is greater than in the spray suites. This is partly accounted for by the fact that, with the normal supply, mixing takes place in the wash-basin where heat losses can in some circumstances reduce the effective hot water temperature by some 10° F., and that some staff wash with running hot water in the normal suites.

Discussion. It is clear from the results that the use of wash-basins with spray taps supplying water at about 105° F. and a flow rate of about 5 pints per minute will halve the consumption of water and fuel used with normal supply. This allows for one in every five basins to be fitted with normal taps for those who prefer that arrangement and to provide a source of cold water. With such a reduced rate of water consumption there should also be opportunities for economies in design, e.g. in pipe sizing of supply and waste systems, and the omission of basin trap ventilation, plugs, chains and overflows.

It is also clear that, although a large proportion of office staff can accept a spray installation providing water at a fixed temperature, some staff do want a supply of cold water to be available, and some wish to use a plug and fill a basin when washing. The provision of one basin with plug and normal supply in a suite of six basins of which five are without plugs and equipped with spray taps was found to satisfy all staff. However, wherever it is possible in a suite to dispense with this normal basin there will be a still greater contribution to hygiene, water and fuel economy and simplification of installation.

Although the experiments described in this note were carried out in office buildings the results apply substantially to other types of buildings, e.g. industrial buildings, schools, institutions and public lavatories. Spray installations have of course been in use for some time in many industrial buildings and in some schools. Unfortunately however they have not always given satisfaction; rates of flow have often not been suitably restricted and in consequence sometimes unnecessarily high, and the temperatures have on occasion been too variable, sometimes too high for safe washing. When the temperature is high in hard water areas trouble may occur because of blocking of the nozzles due to sedimentation. Blocking can also occur for a short time after a new installation has been operating, due to hemp used in pipe jointing; adequate maintenance will prevent this.

If maximum economy and satisfaction in performance are to be achieved low rates of flow and acceptable temperatures are necessary. In these circumstances the hot water system should be designed to avoid long 'dead-legs' in the pipe runs in order to ensure that water at the arranged temperature will be quickly available at the tap outlets; for example, a circulatory pipe system may be desirable. In some circumstances it may prove more satisfactory for the hot water to be supplied from a small adequately lagged storage tank heated by electricity or gas and located close to the suite of wash-basins; temperature control may then be easier and more certain. Should circulation pumps be deemed necessary in any circulatory system, care should be taken to ensure that equal pressures in the hot and cold water supplies are main-

Table II

Type of Lavatory	Weekly Consumption in Gallons per head		
	Hot	Cold	Total
Men's Normal (control) Lavatory	9·9	3·7	13·6
Men's Spray Lavatory	3·4	2·6	6·0
Women's Normal (control) Lavatory	21·5	8·8	30·3
Women's Spray Lavatory	11·1	5·5	16·6

Table III

Type of Supply	Weekly Consumption in Gallons		
	Hot	Cold	Total
Fully Normal Suites	16,000	6,000	22,000
Spray Suites (each with one normal basin)	7,000	4,000	11,000
Saving in Water	9,000	2,000	11,000

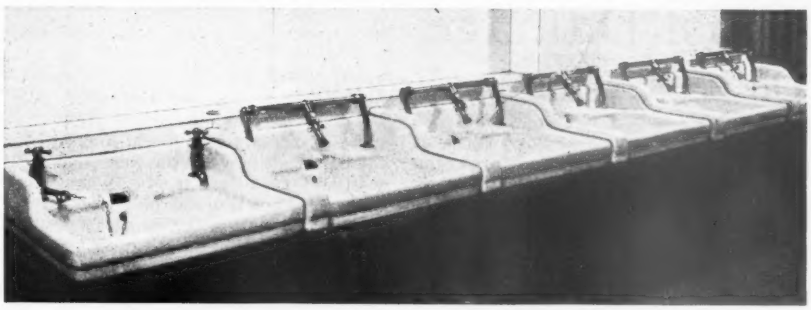


Fig. 1. Experimental Arrangement

Fig. 2. Mixing Tap—pillar type, with restricting orifice and spray-nozzle in position

tained at the mixing valve; otherwise the efficiency of operation of the valves may be adversely affected. Failure to attend to some of the matters mentioned above is probably responsible for much of the disapproval which has at times been expressed of the use of spray taps.

In an effort to meet many of the wishes of adults and to avoid some of the hot water engineering difficulties while achieving considerable economies, the Station collaborated with Messrs. Walker, Crosweller & Co., a firm of thermostatic valve manufacturers, in the development of a mixing tap at a reasonable cost with which it is possible, in one rotation of the tap handle, to vary the temperature of the outflow from that of the cold water supply to that of the hot water supply. By the attachment of a simple nozzle and orifice the outflow rates can be suitably restricted and a spray provided. A photograph of a prototype of one such tap is shown in Fig. 2 fixed in a standard wash-basin and replacing the two usual (hot and cold) pillar taps. Preliminary trials have been very encouraging.

Finally, although the present paper is not strictly concerned with the conservation of water for purposes other than washing, the information set out in Table I is challenging and it may well be worth while to consider further ways in which economies can be effected. For example, observations on the flushing systems for urinals suggest that consumption could be considerably reduced by limiting the hours of automatic operation or, perhaps, by developing some alternative method of flushing.

Acknowledgements. We gratefully acknowledge the generous help given by the Chief Sanitary Engineer and staff of the Ministry of Works.

The work was carried out as part of the research programme of the Building Research Board of the Department of Scientific and Industrial Research, and is published by permission of the Director of Building Research.

Frost Damage
On L.C.C. Housing Estates

A STATEMENT ISSUED on 21 June says that the London County Council's Housing Committee have recently had before them a report on the effects of the severe weather conditions which were experienced in London throughout last February.

Out of the 185,000 dwellings owned by the L.C.C., 31,947 (17·3 per cent of the total), suffered burst or frozen water pipes. The cost of repairing the damage caused has been estimated at £105,000; 20 per cent of the Council's pre-war property was affected and 13 per cent of the post-war property.

Pre-war estates. The pre-war estates north of the river suffered more damage than those in the south—this is attributed to the fact that the estates north of the river have a higher proportion of older, pre-1919 flats and houses and are also more exposed to the cold winds; the plumbing systems in these older dwellings are reasonably sound but owing to age are not sufficiently robust to withstand great pressures. Many of the pre-war houses, such as those at Becontree and Mottingham, were built without felt-insulated roofs, although others, like those at Chingford and St. Helier, have roofs constructed with sarking felt and the pipes in the roof-spaces are lagged. The slow emission of heat from a hot water system (which continues long after the boiler fire has died out) is of value in helping to avert frost damage, but very few of the Council's pre-war houses and flats have hot water systems.

Post-war estates. The flats built since 1945 sustained relatively less damage than those built before the war, but because of their more elementary layout and pitched roofs the flats built between the wars (from 1919 to 1939) gave less trouble when bursts occurred than did the post-war flats. A large proportion of the bursts in post-war blocks occurred on the flat roofs where the degree of protection was found to be insufficient in conditions of extreme cold and biting winds. Many pipes on flat roofs and in ducts on roofs were repaired two or three times, the reason being that the first thaw had indicated the position of bursts, which were repaired, but it was impossible in the time available to renew all the insulation, which had become sodden with water from the bursts. Its insulating properties were therefore lost and the pipes burst again during the next frost.

The majority of bursts on the post-war cottage estates were in fact cases of copper pipes pulling out of compression fittings with which they are jointed at branches and bends. The estates which suffered least damage were those recently constructed at Aveley, Merstham and Sheerwater, where between 7 and 9 per cent of the houses were affected. The estates in Middlesex and Hertfordshire suffered most, about 20 per cent of the houses being affected. At St. Paul's Cray estate the internal plumbing of four houses had been carried out in polythene piping as an experiment; the water in these pipes froze but the pipes did not burst.

Arrangements for Dealing with Bursts, etc. In the period before the thaw set in as many frozen pipes as possible were dealt with either by thawing the system or by making it safe. Late in the week ending 4 February it appeared that a thaw was imminent and arrangements were made to man area offices and works depots over the week-end. During this week-end 54 staff and 767 operatives were on duty and 6,012 calls for help were received from tenants. There is no doubt that the Council's employees who volunteered for work during that crucial week-end saved very many tenants a great deal of inconvenience and prevented considerable damage to the Council's and the tenants' property. Some flooding of premises occurred in all districts and where tenants' furniture etc. was affected, assistance was given in drying out. Throughout February plumbers and mates were working overtime at night and at week-ends executing repairs. In many cases repairs to restore water supplies had of necessity to be only temporary.

Improvements in Frost Protection. On the pre-war cottage estates, the roofs of the houses in the most exposed positions are being provided with sarking felt. This work has been carried out during the past few years and has proved effective in reducing frost damage; and such protective work is still continuing.

Improved standards of insulation have been used in the Council's new buildings in recent years, including the placing of all main pipework in ducts, the lagging of pipes in roof spaces and the improvement of roof insulation in both flat roof and pitched roof blocks of flats. The use of plastic pipework for cold water services has recently been approved by the Metropolitan Water Board, but the production of satisfactory plastic pipes of a diameter suitable for blocks of flats is still in the development stage. Plastic plumbing is being used in the roof spaces of all the houses now being built at the Council's new cottage estate at Langley, Slough.

The experience of last February has shown that it will be necessary to make some modifications to pipework and insulation on several blocks of flats to avoid repetitions of damage caused by frozen or burst expansion pipes and service pipes. No general solution can be given because the problems vary from estate to estate but the objective will be to shorten exposed runs of pipes, to improve insulation and to improve ducting. The work will be carried out as quickly as labour resources will allow.

The Council's Housing Committee are concerned to prevent a recurrence of the extensive damage caused last February and are investigating the practicability of introducing further measures to protect plumbing in the Council's houses and flats. On cottage estates the incidences of damage could be greatly reduced if tenants would take the precaution of keeping their houses warm. Many are left all day and insufficient heat can be generated in the few evening hours to warm the houses sufficiently to avoid freezing. It is proposed to appeal to all tenants in the autumn (through the tenants' associations) seeking their co-operation in taking precautions against frost damage to their homes.

Review of Construction and Materials

This section gives technical and general information. The following bodies deal with specialised branches of research and will willingly answer inquiries.

The Director, The Building Research Station, Garston, near Watford, Herts.
Telephone: Garston 2246.

The Officer-in-charge, The Building Research Station Scottish Laboratory, Thorntonhall, near Glasgow.
Telephone: Busby 1171.

The Director, The Forest Products Research Laboratory, Princes Risborough, Bucks.
Telephone: Princes Risborough 101.

The Director, The British Standards Institution, 2 Park Street, London, W.1.
Telephone: Mayfair 9000.

The Director, The Building Centre, 26 Store Street, Tottenham Court Road, London, W.C.1.
Telephone: Museum 5400 (10 lines).

The Director, The Scottish Building Centre, 425–7 Sauchiehall Street, Glasgow, C.2.
Telephone: Douglas 0372.

Church Lighting. The journal LIGHT AND LIGHTING devoted its June number to articles on the lighting of churches; 'The Role of Light in Places of Worship throughout the Ages', by Manford Belmore; 'The Lighting Engineer's Approach to the Lighting of New Churches', by M. W. Peirce and J. M. Waldram; 'The Architect's Approach to the Lighting of New Churches', by Edward D. Mills [*F*], and 'The Re-Lighting of Old Churches', by D. W. Tyrrell.

As the editorial paragraph says, 'The problem of lighting churches in a fitting manner is not an easy one, despite the resources now available to the lighting designer. Perhaps the difficulties are least in churches of contemporary design and construction, but they are certainly formidable in many historic churches. Churches challenge the imagination and skill of lighting designers and, although this challenge has been met successfully here and there, it still remains all too widely'.

The illustrations show successful and less successful systems of artificial lighting and demonstrate—as well as photographs can—the atmosphere created by the illumination. As Mr. Mills writes: 'In churches the creation of an appropriate atmosphere is of the utmost importance; unsuitable lighting can easily produce a discordant note and it can destroy totally the effect of a well-designed interior'.

LIGHT AND LIGHTING is published by the Illuminating Engineering Publishing Company, Ltd., of 32 Victoria Street, London, S.W.1, price 2s.

Fire Protection in Stores. The Fire Protection Association have issued their Fire Protection Bulletin dated March 1956, dealing with protection against fire in department and large retail stores, which are particularly vulnerable to fire on account of the nature of their business and their structure.

The bulletin calls attention to some causes of fire and precautions to be taken against it; instructions to staff; fire extinguishing and alarm apparatus; structural precautions and means of escape. The bulletin may be obtained, free, from the Association.

The Nautilus 55 Domestic Boiler. In theory the thermostatically controlled solid fuel boiler needs no attention beyond refilling and ash removal. In practice the fire bed becomes filled with clinker, according to the fuel available. To overcome this disadvantage the new Nautilus 55 boiler has heavy firebars which can be rotated to crush the clinker—and even stones—so the fire need never be let out. The boiler is small, about 20 in. by 19 in. on plan and 27 in. high, but it will heat 70 to 80 sq. ft. of radiator area in addition to supplying hot water; it will heat about 130 sq. ft. of radiator area if used for central heating alone. The boiler is thermostatically controlled, needs refuelling only twice a day, and the water jacket completely surrounds the fuel bed. The thermal efficiency is claimed to be 65 to 70 per cent.

The present price of the appliance is approximately £37, and it is a product of Radiation Ltd., of Radiation House, Stratford Place, London, W.1.

Hazardous Goods. The Fire Protection Association, of 15 Queen Street, London, E.C.4, have issued booklet No. 28, *List of Hazardous Goods*; it contains an alphabetical list of some 1,200 substances which are hazardous either because they are readily combustible or because they increase the risk of injury or damage by fire to persons or property.

Eight main groups are classified: (1) compressed 'permanent' and liquefied gases, (2) substances which become hazardous by interaction with water or air, (3) substances giving off flammable vapours, (4) corrosive substances, (5) poisonous substances, (6) supporters of combustion, (7) substances liable to spontaneous heating and ignition, and (8) other readily combustible substances. The relevant group number is given against each item in the alphabetical list. A copy of the booklet may be obtained on application to the Association.

Thermal Insulation. The Structural Insulation Association have published the ninth edition of their pamphlet *How to Insulate Buildings*. The 'U' value of various forms of uninsulated construction used in housing is given, followed by the values obtained if insulation is carried out. The next section gives a list of thermal insulating materials for buildings, with their general description, weight, typical thermal conductivity, form in which they are supplied, standard sizes and thicknesses. The pamphlet ends with the 'U' value of various forms of uninsulated roofings for industrial and public buildings and the reduction of the 'U' figure obtained by different kinds of insulation.

The pamphlet also gives a list of names and addresses of members of the Association from whom technical and general information can be obtained. The pamphlet can be had from the Association, at 32 Queen Anne Street, Cavendish Square, London, W.1.

A New Low-Level Cistern. Messrs. Fordham Pressings, Ltd., of Wolverhampton, announce a new panel low-level cistern for w.c.s which has an all-over outer cover of a seamless steel pressing finished in vitreous porcelain enamel; it projects only 6 in. from the wall. The inner cistern is made of 14-gauge welded steel, heavily galvanised and coated internally with bituminous paint. Capacities of 2 and 2½ gallons are available. The company state that the appliance complies with the regulations of water authorities and that it can be had in a range of colours. The accompanying illustration shows that the cistern is designed on modern lines.

A Handbook of Hardwoods. The Forest Products Research Laboratory has issued the 1956 edition of *A Handbook of Hardwoods*; it gives a full description of 151 timbers and brief references to another 64, and carries out the decision to group hardwoods and softwoods in separate volumes instead of the previous arrangement of one volume about overseas timbers and another on home-grown varieties.

In this present volume information about each timber is given under headings which include seasoning, mechanical properties, wood-bending properties, resistance to

A new low-level cistern

The new showroom of the Carter Group

insect attack, working properties and uses. A general guide is provided by the quick reference table at the end. Published by H.M.S.O., price 17*s.* 6*d.*

New Showroom of the Carter Group. The JOURNAL has already commented on the wisdom of those firms who have set up showrooms where architects can see the various products, and one of the latest showrooms to be opened is that of the Carter group of companies, at Poole in Dorset. The architects, Messrs. Farmer and Dark [*FF*], were set the task of converting an awkwardly proportioned pottery warehouse to provide a display area and an interview room. The permanent walling and flooring include examples of ceramic mosaic and floor tiles, terrazzo precast tiles, a tiled decorative panel and slabbed fireplace surround. A fitting between the windows contains a complete colour range of all the materials offered by the Group. In the interview room is a cabinet containing a sample range in miniature, an easel on which full-size tile schemes can be set up, and a projector for colour transparencies.

The mural to be seen in the accompanying illustration was designed by Mr. Hans Tisdall; it has been carried out in ceramic and glass mosaic.

FEB Plasticiser for Mortars. A demonstration was recently given by FEB (Great Britain) Ltd., of the Febmix Admix plasticiser for bricklaying and plastering mortars. The product is a liquid which is mixed with the gauging water, when it entrains a very great number of microscopic air bubbles in the mix, thus—it is claimed—making it easier and faster to spread the mortar, from which lime can be omitted. Less water is required, whereby the drying-out shrinkage risk is reduced.

At the demonstration one bricklayer laid bricks with a mortar mix of 1 part cement, 1 part hydrated lime and 6 parts sand. Another bricklayer used a mix of 1 part cement to 6 parts sand with an addition of Febmix Admix. In ten minutes the 'normal' bricklayer laid 89 bricks and the 'Feb' craftsman 109 bricks. For the plastering demonstration two screens had been erected on one of which a plasterer used a mix of 1 part cement and 3 parts sand; on the other screen another plasterer worked with 1 part cement to 6 parts sand with Febmix Admix. Both screens were ruled off as the work proceeded. Neither screen was fully covered in the ten minutes allowed, but it was estimated that the 'Feb' plasterer had placed and ruled off nearly 4 yds. super more than the 'normal' plasterer. The four operations were started off at the same moment by Lord Silkin of Dulwich.

The address of the company is 102 Kensington High Street, London, W.8.

Solid Fuel Appliances. The Coal Utilisation Council and the Solid Smokeless Fuels Federation have issued List No. 12, January 1956, 'Recommended Domestic Solid Fuel Appliances'. The appliances marked with an asterisk are recommended by the Ministry of Fuel and Power for local authority housing, and the Ministry of Housing and Local Government expects all local authorities to make their selection from the list. The larger or more expensive appliances are not starred.

This list cancels No. 11, dated July 1955; it has been prepared in consultation with the Ministry of Fuel and Power.

Domestic Electrical Appliances. The British Electrical Development Association have issued List No. 4, dated January 1956, of recommended electrical appliances for local authority housing, compiled at the request of the Ministry of Fuel and Power. It is suggested that housing authorities, architects and others concerned should consult their Electricity Boards or other competent electrical advisers as to the appliances best suited for their particular schemes.

The list includes cookers, home laundry appliances, kettles, space heaters and water heaters, and may be obtained from the B.E.D.A., 2 Savoy Hill, London, W.C.2. It is issued free to those who are concerned with the matter.

The Design of Fish Shops. Photographs of streets of a hundred years ago, or even less, show that in those days the fitting-up of a shop hardly merited the use of the word 'design'; now it is a specialised matter carried out by specialist firms, either directly or under the instructions of an architect. It is no longer just a matter of fixing a door and windows over stall-boards in the front and a counter and a few shelves inside; psychology now has to be considered—how to attract the attention of the customer, how to arrange the display cases so that he (and especially she) may be 'led' into the shop. In all this, lighting and decorative finish play an important part.

It might be thought that these considerations apply but lightly to the design of shops for the sale of fish, but it has been considered worthy of a report by the advisory panel on the improvement of retail fish sales, set up by the White Fish Authority. One of the panel's terms of reference was 'To examine and to prepare a report upon the best methods of improving the appearance and selling efficiency of fishmongers' and fish friers' shops, in particular upon the layout, design, fixtures, equipment, refrigeration techniques, lighting and heating of shops'. The report is illustrated by plans, drawings and photographs, and is published by the White Fish Authority, of Tilbury House, Petty France, London, S.W.1, price 1s. The Scottish office is at 17 Rutland Square, Edinburgh.

British Standards Recently Published

B.S. 2706: 1956. **Non-ferrous conduit and conduit fittings.** A demand for this Standard has arisen from the increasing use of aluminium electrical conduit and aluminium and zinc alloy conduit fittings in domestic and industrial installations. An appendix gives recommendations for the installation of such conduit and fittings. Price 6s.

B.S. 1318: 1955. **Wood Battens and Counter-battens for Slating and Tiling.** This revised Standard includes requirements relating to counter-battens which were not given in the previous issue. Vertical battens used in connection with Italian, Roman, Spanish and similar tiling have not been included. Tolerances in width and thickness are now allowed to operate at the same time. Price 2s.

B.S. 2705: 1956. **Clay Lath.** This Standard deals with the minimum requirements for clay lath used as a basis for plaster finishes, and gives the most useful sizes of sheet and roll as well as the minimum requirements for the strength of the mesh and the strength and adhesion of the clay pellets. Price 2s.

B.S. 1191: 1955. **Gypsum Building Plasters.** This Standard has been revised in the light of experience and current practice. Requirements for anhydrite plaster have been omitted because the material is no longer manufactured. A limit has been introduced for the soluble salt content of Keene's and Parian gypsum plaster. Price 4s.

Ordering Bricks Today

A Note from the Science Committee

TWO YEARS AGO the Architects' Conference at Torquay discussed 'Materials and Techniques', and some frank comments were made about some of the industries that make building materials. Generally the views expressed were either along the lines that too little technical initiative was evident or that the needs of modern design were not yet being met.

The industries concerned have on the whole given the remarks a very constructive reception and some have responded by saying, in effect: 'if architects are not getting what they want, the right thing to do is to set up a mechanism for joint discussion of needs and possibilities'. This seemed very reasonable, and the upshot was the formation by the Science Committee of a special Industry Liaison Sub-Committee to meet the representatives of different industries in turn for discussions. A useful beginning was made with the Cement and Concrete Association, and more recently there was a long, cordial, and fruitful discussion with the National Federation of Clay Industries. So many points of direct usefulness came out of this latter meeting in fact that it was agreed in the Science Committee to write this article in order to pass them on at once to architects generally.

Packaged Bricks. The architects asked about ways of delivering bricks. Present handling methods on sites, it was said, gave rise to untidiness and accidents, and led to damage that represented often appreciable wastage and inconvenience. Information about packaging was sought.

The industry representatives said that some manufacturers were already delivering either banded or palletised bricks in packs of up to 240, if builders were equipped to off-load and handle them, and the costs compared more than favourably with the handling of loose bricks. However, there was not yet general agreement about which methods would be best for general use, and the subject was now to be actively taken up by the Brick Development Association in conjunction with the Building Research Station. Architects, none the less, can help this idea along by seeking packaged handling on sites under their influence.

Brickwork, Fairfaced Both Sides. The architects pointed out that 9 in. walls, fairfaced both sides, were still often needed for such purposes as factory work and boundary walls, and that over-long bricks often occurred in the deliveries and made themselves a nuisance when they were used as headers. They asked if bricks gauged for length could be supplied for this purpose. Apparently no technical difficulty exists but the gauging and separate handling of these bricks would attract some additional charge, though not large enough to off-set the advantages. Architects should therefore be encouraged to ask for quotations, and the makers will be encouraged to respond.

Brick Lengths. As regards the length of bricks generally, the architects said that they felt there was often too much variation from the B.S. dimension of 8¾ in., which led to difficulties about brick dimensioning, especially when the length was excessive too frequently. They felt that the *maximum* length should be 8¾ in., with the average rather below this.

The manufacturers recognised this problem and are going to consider what action can be taken.

Half-bricks. 'Could half-bricks be made?' was a question asked by the architects. Apparently they had been made in the past, but demand had not been good. If there was now a greater demand—perhaps due to rising costs—manufacturers would certainly make to specific orders at least. The price of a half wire-cut should be somewhere about two-thirds of a whole brick, while a pressed half would be more—perhaps seven-eighths. Snapped headers (wire-cuts cut two-thirds through) could also be produced if a demand for them were found to exist. General manufacture, as distinct from specific orders, would depend on how widely a need made itself evident. This in turn depended on architects and builders knowing about availability. It seems to be up to architects therefore to make their wishes felt, either centrally or through their builders when they are ordering.

Variations in Colour. A number of complaints had been made by architects about variations in the colours of bricks from batch to batch in different deliveries. Apparently this is something that brickmakers are doing their best to control, but they said the best way to ensure constant colour for a single building was to notify the company of full requirements when placing the initial orders. Then the brickmaker could collaborate in ensuring uniformity.

Glazes. As for coloured glazes on bricks, both for interior and exterior use, the architects emphasised that there was likely to be a growing demand, provided that colours were well chosen and price was in an acceptable range. They did not seek the perfection of a tile finish but would be interested in surfaces with a texture, such as hand-made bricks give.

The industry's representatives said that small quantities of such bricks were now being made, and that makers knew of the need. The vital next stage was to get interested architects to begin to use them so that the profession could obtain experience, and the makers themselves get the encouragement needed to keep on with the development.

The architects noted that it would be useful to relate the colours of glazes to the new B.S. 2660 as far as practicable, so that standard paint colours and the bricks could be readily used together.

Strengths. Some architects and local authorities had found disturbing variations in brick strength, particularly in the class of semi-engineering bricks, and felt that perhaps makers should now be prepared to offer guarantees. It was important for calculated brickwork especially. At the same time the makers noted their own problems. It was a question of continuous quality control, and big makers would more often be able to do the necessary testing than the smaller makers. Also there were differences of opinion about methods of testing which were under discussion in other quarters. However, the brickmakers were vigorously pursuing the matter and said they would keep the profession informed.

A point which the brickmakers brought to architects' attention was that bricks with high crushing strengths tended to be darker than weaker bricks of the same type. Where different strengths were specified, brick colour might therefore change. It was a point that designers should try to remember to discuss with the maker when different strengths were needed for a building.

Perforation for Heat Insulation. Information was sought about the development of perforation in the interest of heat insulation. Clinker blocks were often in use today where brick might do a useful job, though the clinker block had advantages in being easily cut and chased. The problem here is production technology. The need was recognised and large scale investigations were being organised by the Brick Development Association. Again the profession would be kept in touch with developments, it was said.

Price. The architects pointed to the fact that in the London area there were facing bricks available at about 140*s.* per thousand, and again at about 320*s.* per thousand or more, but there was nothing much in the intermediate range. It was appreciated that elsewhere in the country this was not necessarily the case. The industry's representatives could not of course offer any immediate action in the matter but noted the observation carefully and said they would make the view known in the industry.

The Right Brick for the Purpose. The makers wanted the profession to know that they could co-operate better and give more help if architects would tell them the use they had in mind for what they were ordering. Cases had been occurring where bricks had been used which were unsuitable for the job, and the reputation of the brick would suffer incorrectly. It was agreed that this was another matter to be included in the present report.

* * *

The discussion concluded at this point, but will be resumed when a reasonable period has elapsed. Meanwhile architects are asked to send in to the Secretary information about any other brick problems which are confronting them and that seem to call for general discussion with the industry.

Practice Notes

Edited by Charles Woodward [*A*]

IN PARLIAMENT. Housing—Improvement Grants. Asked whether he will encourage the full utilisation of available national housing resources by taking steps to require local authorities to give an undertaking to the owner of an improved or converted property that repayment of the proportionate part of the grant will be accepted within the period of 20 years and the property thereby freed from restriction on sale if the sale of the property arises from some reasonable cause, the Minister of Housing and Local Government replied:—In a circular issued last October, I asked local authorities to consider sympathetically any application to repay grants in these circumstances and to consult me before refusing such an application. Any further steps would require amending legislation. (26 June 1956.)

PROFESSIONAL FEES. Basis of remuneration. In the JOURNAL for June attention was called to a case in the Court of Session where it was held that where there was no specific arrangement as to professional fees payable, the Court was not bound to apply a schedule of professional charges unless the Court was satisfied that the resulting fee was reasonable.

In the Court of Appeal on 19 June, judgment was delivered in the case of Duke of Grafton *v.* Secretary of State for Air, which also concerned a claim for professional fees where no agreement was made as to what fees were to be paid.

In this case the Secretary of State for Air had withdrawn a notice to treat for the acquisition of the plaintiff's land and thereby became liable to pay compensation for any loss or expenses due to such withdrawal. In default of agreement the compensation is determined by the Lands Tribunal. The surveyors employed by the plaintiff had done everything necessary to enable them to give evidence in support of the amount claimed as compensation in respect of the notice to treat, but there was no award or settlement.

The Lands Tribunal had decided that the fees payable to the surveyors were to be calculated on scale 5 of the R.I.C.S. Scale of Charges based on a percentage of the final claim submitted by the plaintiff.

From this decision the Secretary of State for Air appealed. The Court of Appeal allowed the appeal and remitted the case to the Lands Tribunal for reconsideration. The Court pointed out that as there was no agreement as to what fees were to be paid the matter was left to the ordinary law which would imply a reasonable remuneration. The practice seemed to be well settled with regard to surveyors that where there was an award or settlement the method of paying on a percentage basis was a basis which could be adopted. With an institution of such standing as the R.I.C.S. the basis could no doubt be accepted as the reasonable view of the profession as to what the fees should be, but in the present case the scale did not apply. The Court agreed that the scale could be used as one of the elements of fact in deciding reasonable remuneration, but did not think it could be applied as a decisive factor. It was simply a guide in the absence of agreement.

The case was reported in THE TIMES of 20 June and the ESTATES GAZETTE of 30 June.

The Scottish and English cases give emphasis to the necessity for professional men to have an agreed basis of remuneration for their services. In the absence of such agreement the R.I.B.A. Scale of Charges would be looked at as a guide in cases where all the work provided for in the Scale had been done. The Scale itself requires *prior written agreement* as to the percentage to be charged for professional services in respect of an existing building, and there would appear to be no reason why there should not be prior agreement that the Scale is to be the basis of employment of the architect by the client for any services required.

MINISTRY OF HOUSING AND LOCAL GOVERNMENT. The New Valuation Lists. A county by county analysis of the new rateable values classified according to the type of property has been published as a Supplement to the Ministry's annual publication *Rates and Rateable Values in England and Wales*.

The Supplement is obtainable, at H.M. Stationery Office, price 3*s.* net.

Trees. In Circular 36/56 dated 26 June 1956 addressed to local authorities in England and Wales the Minister hopes that all Councils who are carrying out schemes of slum clearance or redevelopment will take the opportunity of introducing more trees into these areas.

Steps should also be taken to encourage tree-planting in the grounds of public utilities and industrial concerns, as well as in privately owned housing estates and individual gardens. The active interest and co-operation of the people should be enlisted. Schemes of various kinds, such as the 'adoption' of trees by householders and planting by school children, may be helpful in developing a more general regard for trees and an appreciation of their value to the community.

PLANNING DECISIONS. The JOURNAL OF PLANNING AND PROPERTY LAW for June has some interesting decisions of the Minister of Housing and Local Government where appeals have been made from conditions imposed in a permission by the local planning authority.

One condition was that the external appearance of the building should be maintained to the satisfaction of the local planning authority. The Minister discharged this condition as being too indefinite.

In another case a condition was that no development of the land should take place until main drainage facilities were available to the houses to be erected thereon. The Minister refused permission for the proposed development because it would aggravate the drainage difficulties of the area, and he dealt with the case as if the application had been made to him in the first instance.

ANNOUNCEMENT BY THE PLASTER BOARD INDUSTRY. The Plaster Board Industry announces that the price of plaster board will be increased by ½*d.* per square yard as from 2 July 1956.

When the decision was taken six months ago to hold the price of plaster board firm until 30 June, it was indicated that this could only continue to be effective if others —whose materials, services and charges form a major part of the costs of this Industry—showed restraint.

Unfortunately, heavy increased costs have been imposed and the Plaster Board Industry has no alternative but to increase the price of its product to meet some, but by no means all, of the increased charges. Nevertheless, it is the intention of this Industry to stabilise its prices so far as circumstances outside its control permit.

ANNOUNCEMENT REGARDING PLASTER PRICES. The British Plaster Board (Holdings) Limited announced in January of this year their decision to hold firm the price of gypsum rock and plasters sold by their subsidiaries until 30 June 1956.

For the same reasons as are given in the above announcement by the Plaster Board Industry, the prices of gypsum rock and plasters will need to be increased as from 2 July 1956 and the trade is being informed of the amount applicable to the various types and grades of these commodities.

SALE OF TEMPORARY HOUSES. The Ministry of Works is calling for tenders for the purchase in bulk of up to 500 temporary houses in and around London. The houses are being declared surplus by local authorities mainly because the sites are required for re-development with permanent housing.

The purchasers will be required to dismantle and remove all the houses in the contract, and clear the sites within given periods. This offer is, therefore, not suitable for the needs of individual private buyers.

The Ministry is, however, reserving a number of houses for offer as required to individuals who are able to obtain the necessary planning and bye-law permission for re-erection. (28 June 1956.)

NATIONAL JOINT COUNCIL FOR THE BUILDING INDUSTRY: Lodging Allowance. The National Joint Council have decided that the current rate of lodging allowance, 7*s.* per night, be increased to 8*s.* per night, and that the new rate shall take effect as from 3 September 1956.

A 'STONE'S THROW.' For the purpose of advertisements in official guides, the Association of Resort Publicity Officers have decided that the phrase 'a stone's

throw' should only be allowed where the properties are 100 yards or less from the sea.

LAW CASES

Bell v. Norman C. Ashton Ltd. Alleged breach of restrictive building covenant. This was an action in the Chancery Division of the High Court, in which the plaintiff claimed that the defendants were not entitled to erect more than two houses on each of two plots on a residential estate.

The defendants were proposing to build a total of nine houses on the two plots, and suggested in evidence that planning permission for the erection of more than two houses a plot had been granted and that modern social conditions demanded planning on the scale they proposed, and it was anti-social for persons to want to live in a world with greater space around them. The Judge said: 'I was much incensed by this and it is a proposal I reject with some indignation. I do not see why a man should not contract to have half an acre more round him, instead of four neighbours.'

The plaintiff was granted a declaration and injunction enforcing the provisions of the restrictive covenant in regard to the two plots, and was awarded costs. (THE ESTATES GAZETTE, 16 June 1956.)

Book Reviews

The Architecture of Japan, by *Arthur Drexler*. (New York: Museum of Modern Art.) 10 in. 286 pp. incl. pls. New York. [1955]. ($6.50).

The Japanese House and Garden, by *Tetsuro Yoshida. Marcus G. Sims*, trans. 10¾ in. × 8½ in. 204 pp. incl. pls. and other illus. Archit. Press. 1955. £3.

World's Contemporary Houses. *Shinji Koike and others*, eds. [Text in Japanese and English.] 8¼ in. × 11¾ in. 105 pp. incl. pls. and other illus. Tokyo: Shokokusha Pubg. Co. 1954. ($6.50).

In recent years there has been a remarkable awakening of interest among western architects in the traditional architecture of Japan. The reasons are clear enough. The Japanese house is and has long been a modular building, with the mat as the unit of measurement and the various structural parts standardised to the last detail. It is also noteworthy for its flexible plan, for the intimate relationship between outdoor and indoor areas, and for the decorative use of unpainted woods and unadorned building elements generally.

This enthusiasm in the west for Japanese architecture has given birth to a small library of books, and three of these, printed respectively in the United States, Europe and Japan, are certainly among the best.

The first, the work of the Curator of the Museum of Modern Art's Department of Architecture and Design, surveys the cultural origins of Japanese art, and proceeds through principles of construction and design to an analysis of those buildings (and gardens) which the Japanese themselves consider masterpieces. A 25-page supplement is devoted to the Japanese house shown in the Museum's garden in New York last year. The volume is a splendid production, concisely written and informative, and containing a superb collection of photographs, including an unmatched series of the celebrated Ise shrine.

The second may be described as a standard work. In 1935 *Das Japanische Wohnhaus* by Tetsuro Yoshida appeared under the wing of the German publisher Ernst Wasmuth, and a completely revised edition of this work, with much new illustrative material, came out about two years ago. It is an English version of this second edition which has now been issued by the Architectural Press, and in it Yoshida describes with admirable clarity and completeness all the essential aspects of the traditional Japanese house and garden. The publishers have undoubtedly performed a most useful service in making this volume available in our language.

A little less distinguished, and much more limited in scope, although none the less competently compiled, is the volume printed in Japan. This is one of a series illustrating modern houses in various countries, and it shows a selection of post-war houses by Japanese architects. In most of these tradition is tempered by obvious western influences and for this reason they are of much less interest to British readers.

The Early Australian Architects and their Work, by *Morton Herman*. 9¾ in. xv + 248 pp. incl. pls. and other illus. + pls., some col'd. Sydney and London: Angus & Robertson. 1954. £3 3*s*.

A few years ago an excellent biography by M. H. Ellis on Francis Greenway was published, in which the author mentioned that Mr. Morton Herman, a distinguished Australian architect and historian, was preparing a book on the early architecture of his country. Greenway was of course the brilliant and rambunctious ex-convict who had outstanding architectural ability and designed a large number of charming buildings, notably two churches: St. Matthew's at Windsor and St. James's at Sydney. Mr. Herman's book has now appeared and one can confidently say that it is as important as it promised to be. Scholarly and lively, it is an extremely ably compiled and comprehensively documented record of the work of Australian architects between 1788 and 1850. If none of these quite attained the stature of Greenway there were several, John Verge and David Lennox for instance, whose achievements deserve wider recognition. In all, the contributions of more than thirty people to the architecture of Australia during this interesting period are reviewed. The illustrations include more than 120 drawings by the author, of which many are unfortunately of buildings that have disappeared or suffered radical alteration.

British early colonial architecture is still a sadly neglected subject. Who for example has written about architecture under the East India Company? Nobody—and soon it may be too late to do it at all. The more credit therefore to Mr. Herman for serving Australia so well. J. C. P.

The City of our Dreams [York], by *J. B. Morrell*. 11 in. × 8½ in. 150 pp. incl. pls. and other illus. St. Anthony's Press. 1955. £2 10*s*.

The recent long overdue and very welcome graphic recording of our medieval towns is further implemented by this attractive book, in which one discovers many new features among the old friends and fascinating glimpses of ancient streets and courts. We are already indebted to its author for *York Monuments* (1944) and *Woodwork in York* (1949). The coverage of periods is unusually wide: a survey of the city gates and of medieval survivals is followed by a good selection of 16th to early 19th-century fronts, some bridges and almshouses, and a number of 19th-century churches and other buildings. The present century's contribution is shown in public buildings, factories and housing, and the work concludes with 'York of the Future', set off by perspectives of replanning projects.

A feature of the book that one wishes were more often found is the addition of dates in captions throughout (though some seem to err on the side of approximation); these are repeated in the detailed list of illustrations, which gives a useful view of the contents. Of the 130 pages in the body of the work, over 80 are of illustrations, mostly good, though they vary in quality. Alas! there is no plan of the city to point the way to the obscurer remnants; but this will come in the promised Royal Commission volume, and these, with Angelo Raine's recent *Medieval York: a Topographical Survey*, will make a notable trilogy.

Those who have not been to York will want to visit it without delay; those who have will want to explore it more thoroughly. H. V. M. R.

Schmiedeeisen und Leichtmetall am Bau &c., by *Wilhelm Braun-Feldweg*. 3rd ed. 11½ in. 143 pp., incl. pls. and other illus. Ravensburg: Maier. [1955]. 28 DM.

This beautifully prepared and produced book is the small brother of the same authoritative writer's exhaustive work for metal craftsmen *Metall—Werkformen und Arbeitsweisen*. It comprises however more than four hundred photographs and drawings, each with explanatory notes, illustrating the countless applications of wrought iron and light metal in building. The fact that a book first published in 1952 has already justified a third expanded edition indicates its value. There is nothing equivalent in English.

Constructional Steelwork, by *Oscar Faber*. (Spon's Architectural and Building series.) 8½ in. xxiii + 368 pp. incl. double pl. and other illus. and 2 folding pls. Spon. 1955. £2 10*s*.

Although this time Dr. Faber does not claim to have 'simply explained' his subject, he begins with a chapter on first principles

and avoids higher mathematics throughout. The author's qualifications as an engineer and as a writer of text books are widely known and sufficient to commend this work, which is based on relevant British Standards and Codes of Practice, especially BS 449: 1948, and is intended for third and fourth year students of architecture and structural engineering.

Architectural Engineering—New concepts, etc., An ARCHITECTURAL RECORD book 11¾ in. lx + 494 pp. incl. illus. New York: Dodge Corpn. [1955.] $11.50.

A selection from the more important articles which have appeared during the past nine years in the architectural engineering section of the magazine ARCHITECTURAL RECORD fills this useful volume. A great deal of information has been collected and grouped under six main headings: the Building Shell, Environmental Control, Utilities, Site Planning, Materials and Special Problems. Heat Pumps, Solar Heating, Thin-shell Structures, Structural Plywood and Atomic Blast-resistant Buildings add savour to this feast of technical wisdom. Including plans, diagrams, structural details and photographs, there are 1400 illustrations.

Pencil Techniques in Modern Design, by *William. W. Atkin* [and others]. (Presentation methods series, vol. i.) 11½ in. vi + 122 pp. incl. pls. and other illus. New York: Reinhold; Lond.: Chapman & Hall [1953]. £3 6*s*.

Planned as the first of a series of books on architectural presentation methods, this pleasantly produced work begins by analysing the many techniques of pencil rendering and in the second half provides a short course of instruction in the art for the student. A great variety of examples are shown, including characteristic drawings by such experts as Hugh Ferriss, Eric Mendelsohn, Richard Neutra and Ludwig Mies Van der Rohe.

Blueprint Reading for the Building Trades, by *Joseph E. Kenney*. 2nd ed. 12 in. vii + 120 pp. incl. (44 + 2) pls. and other illus. New York: McGraw-Hill. 1955. £1 15*s*. 6*d*.

British architects will be interested in the detail drawings from the offices of prominent American architectural firms.

The book is a new edition of a work of established reputation in technical colleges of the United States which train students and apprentices in modern building practice.

The Local Government of the United Kingdom, by *John J. Clarke*. 8½ in. xviii + 684 pp. Pitman. 1955. £1 10*s*.

The standard work of local government (now in its 15th edition). Of immense value as a source of reference for factual information.

Correspondence

OLYMPIC GAMES

C. D. Spragg, Esq., Secretary, R.I.B.A.

DEAR MR. SPRAGG,

Melbourne, Australia's second city, is making full-scale preparations to carry out its role as host to the 1956 Olympic Games which will be held from 22 November to 8 December. Between 5,000 and 6,000 of the world's best athletes, champions of up to 80 nations, will gather in Melbourne to compete in hundreds of events in 16 branches of sport. It is anticipated that another 8,000 to 10,000 visitors are likely to come from overseas countries to watch the Games.

Melbourne realises its responsibility to ensure that visitors will enjoy their brief sojourn here. The matter of accommodation is one which is receiving special attention. As may be expected, hotels will be unable to cope with the abnormal influx of visitors but the citizens of Melbourne have provided the solution by throwing open their homes to people from other countries.

The members of the Royal Victorian Institute of Architects would be delighted to welcome as guests in their homes any members of the Royal Institute of British Architects and their wives and friends for the duration of the Games. It is very much hoped that some of your members will be able to avail themselves of this opportunity and we shall look forward with great pleasure to hearing from any who may be considering the possibility of coming to the Games.

With greetings and best wishes,

Yours sincerely,

JOHN B. ISLIP,
Secretary,
The Royal Victorian Institute of Architects,
53–55 Collins Place,
Melbourne.

RONCHAMP

The Editor, R.I.B.A. Journal

SIR,—Having unfortunately missed the discussion at Mr. Spence's talk, may I avail myself of space in the JOURNAL to take up Mr. Spence on two points in connection with Ronchamp, having just returned from there with very fresh and deep impressions.

Mr. Spence referred to the chapel as being a modern 'Baroque.' This, in my opinion, could only be a fair analogy if one could classify any free play of shapes under the heading of Baroque. This, I submit, does not do justice to the spirit of Baroque. However, the chapel does share with Baroque the great quality of the 'oneness' of space and succeeds in this actually better than most buildings of the Baroque period, which are still essentially 'directional.'

The beauty of Ronchamp lies in this achievement of complete oneness, the absence of any direction and an experience in space irrespective of the beholder's position.

This, in fact, would meet another of Mr. Spence's criticisms, namely, the apparently unimportant position accorded to the altar. The simple slab representing the altar is only one element in a 'total' composition, not a property in a stage set for religious performance. When Mass is held in the chapel, the altar acquires immediately great validity and then there is no doubt about direction, as anybody will bear out who has witnessed a service there.

Where the analogy with Baroque definitely fails is in the structural conception. In the finest examples of Baroque, construction is stretched to its ultimate resources and thereby differs from Gothic inasmuch as for the sake of drama and effect natural force and stress lines were often camouflaged or almost reversed, while the Gothic gives conscious expression to the action of forces. In Ronchamp no lines of forces are discernible, while the structure is conventional though used in an unconventional manner.

The second point concerns Mr. Spence's observation that as a chapel this building appears rather more a glorification of Le Corbusier than of God.

It is difficult to see how an artist can glorify God other than by giving the best that is in himself. Further, by creating a fine product of the mind, Corbusier has acted in great piety, though untrammelled by any dogma. He has created an object of great harmony, which is after all the aim of all religion. Even if he has glorified himself, by being highly sensitive to this ultimate harmony, to all those who believe he has also glorified God; to others he has given an experience which any great work of art, like music, can confer on those who can feel.

Yours, etc.,

H. WERNER ROSENTHAL [*A*]

EXPLANATORY DRAWINGS WITH BILLS OF QUANTITIES

The Editor

DEAR SIR,—I am puzzled by some of the qualifying words the Council inserted in approving the Practice Standing Committee's recommendation in this connection: the qualifying words in question being 'and would not form part of the contract in any sense'.

In submitting a tender a builder does not of course enter into a contract but merely offers to treat with the party on whose behalf the Bills are prepared. The qualifying words must therefore be supposed to relate to the time when a contract is being entered into which if it is in the form approved by the R.I.B.A. binds the Contractor 'to execute and complete the Works shown upon the said drawings and described . . . in the Bill of Quantities'.

It is difficult to see how it could be otherwise, for it is not the intention that the contractor should simply execute certain quantities of work of certain qualities, but that he should do this in such a manner as to result in a building of the form shown on the drawings.

What then is the interpretation members are expected to put on the Council's words quoted?

Yours faithfully,

STANLEY R. MILLER [*F*]

BULGED WALLS

The Editor

SIR,—A relative has written to me about an old house which he has bought recently in Suffolk. It is near a railway where trains pass from time to time during the day. He has discovered dry rot in the timber and bulges in brickwork.

At 80 I am too infirm to go down to see the house, but from an active practice lasting fifty years I have had so many similar cases to deal with that I can form a good idea of what I should find, viz.: an old house built from porous bricks set in lime mortar, pointed in strong cement mortar perhaps fifteen or twenty years ago.

In the days when such houses were built they evidently had as much trouble to get the 'brickies' to wet their bricks as we have always had. It has been the one trouble in a long and very happy professional life. I have had Fletton work in cement mortar shrink back from the brick faces to allow a steel rule to be passed 3 in. into the joints where the work has been done in summer and the wetting of bricks neglected.

Why do the old walls in lime mortar bulge?

Where they do it will be found that the bricks are porous and that the mortar is in the form of a dry powder. The water needed for setting has been sucked out before the mortar could set, leaving the constituents in their original state before 'knocking up'.

This dry powdery mortar whenever it becomes visible on the face of the work leads the householder to send for his builder in great haste and order pointing in strong, usually 2 : 1 cement and sand, and washed sand at that—not at all a suitable mix for waterproof pointing, but it is almost incompressible.

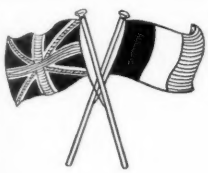
Now what about the back joints usually covered by plastering? This is usually loose from neglect to wet the absorbent wall to which it was applied. There is hardly a road in the kingdom which does not from time to time carry heavy traffic, and when this traffic passes the adjoining houses shake. What happens in the powdery mortar joints? If the mortar has not already become isolated grains it soon does so, the principle of 'least work' applies and each grain moves ever so slightly to accommodate itself more easily among its neighbours. From time to time a few grains roll out over the edge and so leave the joint for ever. This goes on and on, and now the bricks move a little to suit the changed conditions of support and the back edges come a little closer together. The conditions are those of a moulding which a joiner has saw-kerfed to enable him to bend it round a curve. The former plane face of the wall has become a curve, and the remedy is to point the back in cement after *wetting* the wall and pushing in some broken slate here and there where the mortar seems to have run out more than usual.

Provided the bulge is not too great to be safe this should be a complete remedy, but if any part of my reasoning seems to be wrong I hope members will not hesitate to write to the Editor or to me, for it is of course most important that it should be corrected at once if it is wrong in any part.

Unfortunately I am retired and so shall have no chance now to use this method, but I should not have hesitated if I had seen how bulges appear to be caused when I was in a position to make use of it.

Yours truly,

G. N. KENT [*L RETD.*]



The Franco-British Union of Architects

27th Annual Meeting, London, 8–11 June 1956

THE TWENTY-SEVENTH annual meeting of the Franco-British Union of Architects was held in England, with London as the centre, from 8 to 11 June. Many of the previous meetings both in France and Great Britain have been arranged in centres of historic or architectural interest, with visits to old buildings. It was felt this year that we should show our French members something of what is being done in reconstruction and development, and the programme included visits to the City of London and the New Towns of Crawley and Harlow.

The proceedings opened with the Annual General Meeting on 8 June at the R.I.B.A. Sir Albert Richardson, P.R.A.[*F*], was elected President of the Union for the ensuing year and Monsieur Albert Laprade Vice-President; the following candidates were elected as members of the Union: Mr. C. H. Aslin, C.B.E., President R.I.B.A., M. Bruel, S.A.D.G., M. Feuillastre, S.A.D.G., M. Le Mème, S.A.D.G., M. Kruse, S.A.D.G., Mr. T. F. A. Manning [*A*], M. Pavie, S.A.D.G.

It was decided that the next Annual Meeting should be held in France in June 1957, with two days in Paris and two days at a provincial centre.

It was also decided to approach the competent authorities in both countries to obtain recognition of the French Diploma in Great Britain and that of 'Registered Architect' in France so that duly qualified architects could exercise their profession in each of the two countries concerned.

MM. Warnery and Barade offered to receive young British architects for a vacation period of two to three weeks at the Palace of Fontainebleau and at the University of Dijon respectively. This offer was accepted and the British Committee was instructed to select the candidates.

After the meeting members were received by the President R.I.B.A. and entertained to a sherry party. Members later inspected the Wren drawings in the R.I.B.A. Library. During the afternoon, visits were paid to Trinity House, under the guidance of Sir Albert Richardson, and to Bucklersbury House, where the project was explained by Lt.-Col. O. Campbell-Jones, T.D. [*F*]. Members then called at the Mansion House, where they were received by the Lord Mayor, Sir Cuthbert Ackroyd, Bart.

On Saturday 9 June a visit was paid to the New Town of Crawley. The project was explained by Mr. C. A. Turner, C.B.E., F.R.I.C.S., and after lunch, at which members were entertained by the Development Corporation, a tour of the town was made by motor coach. On Sunday 10 June members met at the Royal Academy of Arts, where they were received and shown round the galleries and private rooms by Sir Albert Richardson, who kindly entertained the party to tea at the conclusion of the visit.

On Monday 11 June the proceedings began with a visit to the print room at the British Museum, where the collection of Du Cerceau drawings was inspected before proceeding to Harlow New Town. Here members were received by Mr. Frederick Gibberd, C.B.E., M.T.P.I. [*F*], who explained the scheme. This was followed by a lunch provided by the Development Corporation, after which the party drove round the New Town and inspected one of the houses before returning to London.

In the evening the official dinner was held at Skinners' Hall, by kind permission of the Master and Court of the Worshipful Company of Skinners. Some sixty members and guests attended. Among those present were His Excellency The French Ambassador and Mme. Chauvel; Monsieur Varin, Cultural Counsellor at the French Embassy, and Mme. Varin; Monsieur Laprade, Vice-President, F.B.U.A.; Lt.-Col. Cart de Lafontaine, O.B.E., T.D. [*F*], Secretary-General, F.B.U.A.; Prof. Corfiato, Chairman of the British Committee of the Franco-British Union; Sir Howard Robertson, M.C., A.R.A., S.A.D.G., Past President R.I.B.A., and Lady Robertson; the Master of the Skinners' Company and Mrs. Keith. The President, Sir Albert Richardson, presided.

This brought the annual meeting to a close and French members returned to Paris on the following day.

Notes and Notices

NOTICES

Session 1955–1956. Minutes XIII. At the Ninth General Meeting of the Session 1955–1956 held on Tuesday 19 June 1956 at 6 p.m.

Mr. C. H. Aslin, C.B.E., President, in the Chair.

The meeting was attended by about 420 members and guests.

The Minutes of the Eighth General Meeting held on Tuesday 15 May 1956 were taken as read, confirmed and signed as correct.

The following members attending for the first time since their election were formally admitted by the President:—

As Fellows: W. E. Barnes, R. R. Booth, Arthur R. Dannatt, Anthony R. Dannatt, A. V. Elsey, A. D. Knapton, H. B. Marshall, N. T. Rider, L. A. Rolland, L. J. Selby, L. G. Steer, Charles Tarling, J. M. Wilson, B. A. P. Winton Lewis, S. C. Woolmer.

As Associates: D. G. Batchelor, P. V. Butler, T. L. Ellard, D. R. Evans, J. F. Goulty, D. A. Heath, D. F. C. Keen, P. J. Kilpatrick, C. J. Newbold, W. J. Reed, C. F. Stell, H. W. Sturges, G. A. Wenman.

As Licentiates: J. H. Mason, E. W. F. Pitt.

The Secretary having read the Report of the Scrutineers on the result of the Annual Election for the Council, the President declared that the members of the Council and the Honorary Auditors for the Session 1956–1957 were duly elected in accordance therewith. On the motion of the President, a vote of thanks was passed by acclamation to the Scrutineers for their labours, and was briefly responded to by Mr. E. H. Firmin [*F*], Chairman of the Scrutineers.

Professor Basil Spence, O.B.E., A.R.A., A.R.S.A. [*F*], having read a paper on 'The Modern Church' a discussion ensued and on the motion of Sir Fordham Flower, O.B.E., D.L., Chairman of the Coventry Cathedral Reconstruction Committee, seconded by Mr. Edward D. Mills [*F*], a vote of thanks was passed to Professor Spence by acclamation and was briefly responded to.

The proceedings closed at 7.45 p.m.

Building Surveying Examination. The R.I.B.A. Examination qualifying for candidature as Building Surveyor under Local Authorities will be held at the R.I.B.A. on 10, 11 and 12 October 1956. Applications for admission to the examination must be made not later than 10 August on the prescribed form to be obtained from the Secretary R.I.B.A.

Associates and the Fellowship. Associates who are eligible and desirous of transferring to the Fellowship are reminded that as from 1 January 1956 all candidates for the Fellowship will be required to submit to the Fellowship Examiners drawings and photographs or examples of work. Candidates may also be required to attend for an interview, which may however be dispensed with at the discretion of the Fellowship Examiners. The necessary nomination forms may be obtained from the Secretary, R.I.B.A.

Licentiates and the Fellowship. By a resolution of the Council passed on 4 April 1938 all candidates whose work is approved are required to sit for the Examination, which is the design portion of the Special Final Examination, and no candidates will be exempted from the Examination.

Note.—The above resolution does not affect Licentiates of over 60 years of age applying under Section IV, Clause 4 (*c*) (ii) of the Supplemental Charter of 1925.

Cessation of Membership. Under the provisions of Bye-law 21 the following have ceased to be members of the Royal Institute:—as Associates: Eric Moore Marrett, George Ross Stephen.

CURRENT R.I.B.A. PUBLICATIONS

The following is a list of the main R.I.B.A. publications with their prices.

Agreements, Forms of

Form of Agreement for General Use between a Private Building Owner and an Architect or a Firm of Architects.

Form of Agreement for General Use between a Building Owner (being a Statutory Authority) and an Architect or a Firm of Architects.

Form of Agreement between a Local Authority and a Firm of Architects for Housing Work.

Form of Agreement between a Local Authority and a Firm of Architects for Multi-Storey Flats.

Form of Agreement between the Promoters and a Firm of Architects appointed as the Result of a Competition.

Price 6*d.* per form (inclusive of purchase tax). Postage 3*d.*

Architect and His Work, The

Price 6*d.* Postage 3*d.*

Before You Build. Free.

Certificates, Architects', Form Prepared by the Practice Committee

Copyright Book of 100 Certificates.

Price 17*s.* (inclusive of purchase tax). Postage 1*s.* 6*d.*

Conditions of Engagement and Scale of Professional Charges

Price 6*d.* Postage 3*d.*

Contract, Form of Agreement and Schedule of Conditions

For use with quantities: 1939 revised 1956. Copyright.

For use without quantities: 1939 revised 1956. Copyright.

Price 2*s.* 2*d.* per form (inclusive of purchase tax). Postage 4*d.*

Adapted for the use of Local Authorities, for use with quantities: 1939 revised 1956. Copyright.

Adapted for the use of Local Authorities, for use without quantities: 1939 revised 1956. Copyright.

Price 2*s.* 5½*d.* per form (inclusive of purchase tax). Postage 4*d.*

Fixed Fee Form of Prime Cost Contract for use in the repair of war-damaged property, 1946 revised 1956. Copyright.

Price 2*s.* 2*d.* (inclusive of purchase tax). Postage 4*d.*

Cost Plus Percentage Form of Prime Cost Contract for use in the repair of war-damaged property: 1946 revised 1956. Copyright.

Price 2*s.* 2*d.* (inclusive of purchase tax). Postage 4*d.*

Examination, Intermediate, Questions Set At

Price 1*s.* per examination. Postage 3*d.*

Examination, Professional Practice, Questions Set At

Price 6*d.* Postage 3*d.*

Examinations, Final and Special Final, Questions Set At

Price 1*s.* per examination. Postage 3*d.*

Forms of Articles of Pupilage

Copyright. Price 1*s.* 8*d.* (inclusive of purchase tax). Postage 3*d.*

Membership of the R.I.B.A.

Particulars of the Qualifications for Associateship.

Price 2*s.* 6*d.* Postage 4*d.*

Party Wall Notice Forms, for Use Under the London Building Act

Form A—Party Structures.

Form B—Party Fence Walls.

Form C—Intention to Build within Ten Feet and at a lower level than the bottom of the foundations of adjoining Owner's Building.

Form D—Intention to build within Twenty Feet of the adjoining Owner's Independent Building and to a depth as defined in Section 50 (1)(b).

Form E—Party Walls and Party Fence Walls on line of Junction of adjoining lands.

Form F—Walls or Fence Walls on Building Owner's land with footings and foundations projecting into adjoining Owner's land.

Form G—Selection of Third Surveyor.

Price 7*d.* per form (inclusive of purchase tax) Postage 3*d.*

Prizes and Studentships

Price 2*s.* 6*d.* Postage 4*d.*

Tender, Form of, for use by Nominated Suppliers

Price 2*d.* per form. Postage 3*d.* 2*s.* per dozen (post free).

COMPETITIONS

Ideal Home Exhibition 1957: Competition for the Design of a House. Registered architects are invited to submit designs for a house to be erected at the 1957 Daily Mail Ideal Home Exhibition to be held at Olympia in March 1957.

Assessors: Mr. Arthur W. Kenyon, C.B.E. [*F*]
Mr. Clifford Culpin [*F*]
Mr. L. E. W. Stokes-Roberts, Organiser of the Daily Mail Ideal Home Exhibition.

Premiums: £500, £250, £100.

Last day for submitting designs: 27 September 1956.

Conditions may be obtained on application to Daily Mail Architectural Competition, Gough House, Gough Square, London, E.C.4.

No deposit is required.

New Technical College Buildings, Paisley, Scotland. The Governors of the above College invite architects registered under the Architects (Registration) Acts and resident in Great Britain, Northern Ireland or the Republic of Ireland to submit in competition designs for

new Technical College buildings in Paisley, Scotland.

Assessor: Professor R. Gardner-Medwin, M.T.P.I. [*F*].

Premiums: £1,500, £1,000, £500.

Last day for submitting designs: Noon on 27 March 1957.

Last day for questions: 3 September 1956.

Conditions may be obtained from Messrs. J. and A. Gardner, Clerks to the Governors, 3 County Place, Paisley, Renfrewshire.

Deposit: £2.

An applicant for the conditions must state his registration number or the number of the receipt issued to him by the Architects' Registration Council in respect of the admission fee.

New National Opera House at Bennelong Point, Sydney, Australia: International Competition. The Government of the State of New South Wales invites architects who are members of their respective architectural institutes in any country in the world to submit designs in competition for a proposed National Opera House, to be erected on Bennelong Point, Sydney, Australia.

Assessors: Professor H. I. Ashworth, M.A.(Arch.), F.R.A.I.A. [*F*], Sydney; Mr. Cobden Parks, F.R.A.I.A. [*F*], Sydney; Dr. J. L. Martin, M.A. [*F*], London; Mr. Eero Saarinen, A.I.A., Michigan, U.S.A.

Premiums: £A5,000, £A2,000, £A1,000.

Last day for despatching designs: 3 December 1956.

Every intending competitor was required to register his name and address in writing with the Secretary of the Opera House Committee not later than 15 *March* 1956.

International Competition of Ideas Regarding the Surroundings of Cologne Cathedral. The City of Cologne invites planners to submit in competition schemes for the redevelopment of the area surrounding Cologne Cathedral.

Assessors: Herr Kelter, Cologne; Herr Riphahn, Cologne; Professor Hillebrecht, Hanover; Herr Steiner, Zürich; Professor Weyres, Cologne; Professor Baader, Bonn; Herr Pecks, Cologne; Professor Leibbrand, Zürich; Herr Schüssler, Cologne; Dr. Adenauer, Cologne.

Premiums: 20,000 DM, 14,000 DM, 10,000 DM, 6,000 DM.

The City of Cologne will also purchase 5 entries at 2,000 DM each.

Last day for despatching designs: 12 noon, 31 August 1956.

Competitors may send their entries through the diplomatic representatives of the German Federal Republic. Entries arriving after 14 September will not be considered.

Conditions may be obtained on application to Städtebauamt der Stadt Köln, Stadthaus, Gürzenichstrasse.

Deposit 100 DM.

International Competition, Geneva. The Department of Public Works for the Republic and Canton of Geneva are promoting an International Contest of Ideas for the layout of the Place des Nations and of the Approach to the Secretariat of the Palais des Nations in Geneva.

Assessors: M. Jean Dutoit, Prof. Sir Patrick Abercrombie [*F*], M. Eugène Beaudouin, M. Jacques Carlu, M. Arnold Hoechel, M. Giulio Minoletti, M. Werner Moser. The Assessors will work in consultation with representatives of The European Office of the United Nations, The City of Geneva, The Chief of Police of Geneva, The Secretary General of the Department of Public Works.

Premiums: 40,000 Swiss francs to be awarded to a maximum of 5 entries; 10,000 Swiss francs for the purchase of the premiated entry.

Last day for the despatch of entries: 6 p.m., 15 April 1957.

Last day for questions: 15 August 1956.

Conditions may be obtained on application to the Department of Public Works, 6, rue de l'Hôtel de Ville, Geneva.

Deposit: 50 Swiss francs, returnable if an entry is submitted.

The conditions of this competition have been approved by the I.U.A.

International Competitions. The following International Competition is at present being considered by the International Union of Architects, who are negotiating the conditions with the promoters.

Competition for a monument in New Delhi to commemorate the 2,500th anniversary of Buddha's Enlightenment.

Promoted by the Government of India.

In this case the Secretariat of the I.U.A. have examined the published conditions of the Competition and found them to be generally unsatisfactory and not in accordance with the standard regulations for International Competitions approved by UNESCO (R.I.B.A. Kalendar, page 812) on the advice of the International Union of Architects. Member nations of the I.U.A. have accordingly been warned not to participate, but negotiations are taking place between the I.U.A. and the promoters with a view to bringing the published conditions into conformity with the standard regulations and a further note will be published as soon as the conditions are reported by the I.U.A. to be satisfactory.

BOARD OF ARCHITECTURAL EDUCATION

The R.I.B.A. Intermediate Examination. May 1956. The R.I.B.A. Intermediate Examination was held in London, Plymouth, Manchester, Leeds, Newcastle, Edinburgh and Belfast from 4 to 10 May 1956.

Of the 471 candidates examined, 149 passed and 322 were relegated.

The successful candidates are as follows:—

Abbott: R. F.
Adams: B. R.
Aldenhoven: P. H.
Anderson: D. R.
Anstead: E. T.
Arthur: W. F.
Atkinson: G. D.
Atkinson: R. V.
Ball: G. H.
Barnbrook: N. W.
Beck: C. E.
Beech: M. J.
Bergin: Aidan
Berry: (Miss) H. M.
Besant: David
Bishop: P. J.
Bond: P. A.
Bowry: F. J.
Bristow: B. M.
Broome: D. G.
Broome: M. D.
Bunyan: R. P.
Burch: D. J.
Cannings: Hugh
Carss: J. M.
Chambers: C. W.
Church: M. S.
Clark: David
Cleveland: Frank
Collins: D. J.
Cook: R. A. M.
Cooke: J. R.
Corfield: Godfrey
Day: L. A.
Deeming: R. S.
Devereux: D. M.
Donaldson: I. T.
Duncan, N. H.
Elgar: B. H.
Elliott: Paul
Ellis: N. K.
Farmer: John
Fawcett: R. E.
Foard: M. D.
Forrest: Andrew
Fuller: M. J.
Fuller: R. E.
Garratt: R. L.
Gibbs: A. J.
Gillham: G. B.
Goad: D. I.
Grahame: T. A.
Gurmin: G. E.
Hall: J. B.
Hall: R. D.
Harms: Ronald
Harwood: H. K.
Hassall: M. B.
Hawkins: G. J.
Hawkins: Raymond
Heiberg: R. S.
Hembury: G. J.
*Heydon: G. S.
Hull: (Miss) A. P.
Hunt: A. B.
Hunter: R. A.
James: L. W.
Jarrett: D. W.
Johnston: I. A.
Joiner: L. A.
Jones: R. C. J.
Kimbrey: I. N.
Kirk: (Mrs.) S. R.
Kythreotis: M. D.
Lammin: A. J.
Levene: S. S.
Lewis: G. L. R.
Lightfoot: D. L.
Little: Kenneth
Lobb: R. E.
McIntyre: J. M.
McLaughlin: R. F.
Malham: G. B.
Mallett: R. A.
March: R. J.
Marshallsay: F. C.
Maxwell: G. D. G.
Metcalf: R. J.
Mitchell: R. M.
Morrall: A. C. G.
Morris: G. M.
Mullineux: Donald
Murtagh: A. T. H.
Newton: John
O'Neill: J. G.
O'Sullivan: J. O.
Owen: J. H. L.
Palmer: D. J.
Palmer: J. A.
Parker: J. L.
Parker: S. E.
Petty: William
Phillip: D. S.
Phillips: J. B.
Pritchard: R. A.
Quarterman: Maxwell
Randall: J. R.
Rawson: K. J.
Redmond: Leslie
Rhodes: J. C.
Richards: D. H.
Riley: J. M.
Robinson: Peter
Rogers: John
Rosser: John
Russell: P. S. R.
Salih: Adil
Samson: J. W.
Scott: Malcolm
Shipman: P. D.
Skinner: W. E. A.
Sleigh: A. G.
Smalley: Peter
Smith: A. T.
Standley: B. K.
Stoddart: Neville
Stone: D. G.
Sugden: D. V.
Taylor: E. J. F.
Tham: L. B. K.
Thompson: D. P.
Tinker: J. K. M.
Tippen: B. B.
Tooms: P. T.
Topham: P. M.
Truscott: J. C.
Tucker: P. R.
Vanezis: Christopher
Wake: G. G.
Walker: E. K.
Wallace: L. F.
Whiffin: Mervyn
Wild: L. A.
Williams: John
Williams: J. A.
Wilson: D. J.
Wines: J. W. G.
Winter: Brian
Wise: D. A.

* Subject to approval of History Thesis

ALLIED SOCIETIES

Changes of Officers and Addresses

Norfolk and Norwich Association of Architects. Hon. Secretary, R. W. Sutton [*A*], Milestone Farm, Norwich Road, Wymondham, Norfolk.

South Eastern Society of Architects. President, R. Duncan Scott [*F*]. *Canterbury District Chapter:* Chairman, R. M. V. Messenger [*F*]. *Maidstone Chapter:* Chairman, J. W. Poltock [*A*].

Suffolk Association of Architects. President, Birkin Haward [*A*].

York and East Yorkshire Architectural Society. The Hon. Secretary, H. H. White [*A*], has changed his address and telephone number to 5 High Petergate, York (York 25311).

Royal Australian Institute of Architects. President, W. P. Race Godfrey [*F*].

South Eastern Society of Architects. Annual Luncheon. The annual luncheon of the South Eastern Society of Architects was held on 16 June at the Hotel Metropole, Brighton. A company of about 160 were received by the President of the Society, Mr. Graham Crump [*F*], and Mrs. Crump and the President, R.I.B.A., Mr. C. H. Aslin, C.B.E., and Mrs. Aslin.

The toast of the Society was proposed by Mr. Aslin, who said that without the Allied Societies the Royal Institute could hardly function. He reminded members of their

obligation as architects to work together for the good of all.

Mr. Graham Crump, replying to the toast, emphasised the need to preserve our architectural heritage; the part to be played by architects today in adding to it without being imitative; and the need for tolerance of new ideas and the contribution by the schools in encouraging young men with ideas to experiment freely while safely under tutelage.

Mr. J. L. Denman [*F*] proposed the toast of the Guests, among whom were the Mayors of Brighton and Hove, the Member of Parliament for the Pavilion Division of Brighton, Mr. L. W. B. Teeling, the Presidents of the Kent and Sussex Law Societies, the Past-President of the Southern Counties Federation of Building Trades Employers, and the Kent County Planning Officer, Mr. James Adams, and their ladies.

The Mayor of Brighton, who replied for the guests, saw no reason why Brighton rebuilt should be less worthy for being new, and suggested that a purely local style might evolve in response to the light and sunshine of a seaside town. He mentioned the proposal to build in Brighton a University of Sussex.

GENERAL NOTES

York Institute of Architectural Study. Summer courses. The York Institute of Architectural Study is holding two courses next September: one on housing improvements and conversions from 6 to 11 September, one on townscape from 13 to 18 September. The fee in each case is 5 guineas, and those attending are responsible for their own hotel expenses. Application forms can be obtained from the Secretary, the York Institute of Architectural Study, Micklegate, York, and must be returned to him by 6 and 13 August respectively.

R.I.B.A. Cricket Club. It is regretted that the JOURNAL was misinformed to the effect that the cricket match on 13 June between the R.I.B.A. and the A.A. Cricket Clubs was cancelled. This statement was published in our last issue. The match was in fact played to a finish, the result being: R.I.B.A. 78, A.A. 79 for 4 wickets. The A.A. thus won by 6 wickets.

Membership Lists

ELECTION: 19 JUNE 1956

The following candidates for membership were elected on 19 June 1956.

AS FELLOWS (12)

Altham: George Bernard, Dipl.Arch.(L'pool) [*A* 1940], Colombo, Ceylon.
Bhalla: Jai Rhattan [*A* 1946], New Delhi, India.
Boehm: Rolfe Vernon, B.E.(Adelaide) [*A* 1937], Adelaide, South Australia.
Hirst: Philip Edwin Dean, B.Arch.(L'pool) [*A* 1936], Baghdad, Iraq.
Irwin: James Campbell, O.B.E., E.D. [*A* 1950], Adelaide, South Australia.
Malins: Samuel Edward, A.A.Dipl. [*A* 1936], Ilorin, Nigeria.
Patil: Aravind Shankerrao [*A* 1947], Bombay, India.
Prince: Dorian Herbert Stanley [*A* 1938], Wellington, New Zealand.
Steele: Reginald Goodman [*A* 1950], Adelaide, South Australia.

and the following Licentiate who has passed the qualifying Examination:—

Harrison: John Lodge, Mafeking, South Africa.

and the following Licentiates who are qualified under Section IV, Clause 4 (*c*) (ii) of the Supplemental Charter of 1925:—

Fletcher: Herbert William, Cardiff.
Smith: Thomas Harold, Hull.

AS ASSOCIATES (111)

Anag: Peter David, Orpington.
Archer: Gerald Lawson, Dip.Arch.(Sheffield), Danbury.
Ashton: Ronald, Ramsbottom.
Baird: Robert Leslie John, Bangor, Co. Down.
Beaton: Donald George, D.A.(Edin.), Edinburgh.
Billam: Derek Mann, Gatley.
Billingham: Mervyn Hugh, Leamington Spa.
Bishop: Kenneth George, Orpington.
Briggs: Michael James, Bradford.
Brodie: Edwin, Dip.Arch.(Abdn.), Aberdeen.
Brown: Bryan Gordon, Lusaka, Northern Rhodesia.
Brown: David, Newcastle upon Tyne.
Burrows: William Irving, B.Arch.(Sydney), St. Ives, N.S.W., Australia.
Carress: John Ralph, Dip.Arch.(Manchester), Halesowen.
Cashin: Alfred Maurice, Runcorn.
Cawthra: Malcolm Frank Emsley, Northwich.
Charles: William Raymond, Swansea.
Cherry: John Cecil, Romford.
Chuter: Norman Frederick, West Byfleet.
Clarke: Walter George, B.Arch.(Sydney), Randwick, N.S.W., Australia.
Cluff: Alfred William George, Toronto, Ontario, Canada.
Collins: Bryan.
Comrie-Smith: George Alan, Dip.Arch.(Queensland).
Constable: Gerald Brian, D.A.(Glas.), Hamilton.
Cook: Stanley Gordon, Beckenham.
Cook: Thomas Howard, Dip.Arch.(Nottm.), Grantham.
Cradock: Peter Pollard.
Crawford: Ralph Herbert, Rangoon, Burma.
Cross: Michael Maxwell.
Davies: Clifford Frederick, Sunderland.
Dewar: David, Bilston, Midlothian.
Dixon: Michael James, Godalming.
Dowse: Christopher William, B.A.(Manchester), Newcastle upon Tyne.
Duguid: James Edwin, Dip.Arch.(Sheffield), Belfast.
Duncan: Thomas Hynd, D.A.(Edin.), Whitburn.
Dunn: David Victor, Melbourne, Victoria, Australia.
Edwards: Colin Layton, B.Arch.(Wales), Barry.
Evans: Gordon Thomas.
Fielding: Maurice Leslie, West Byfleet.
Finkle: Gerald Martin.
Finlason: Eric Guy, Liverpool.
FitzGerald: John Desmond, Dublin.
Ford: Kenneth Wilfred.
Foulsham: John Chester, B.Arch.(L'pool), Hertford.
Fowler: Arthur John.
France: John Keith, Stafford.
Gainsborough: John, Uckfield.
Gibson: Ronald Page, Clevedon.
Gill: Ronald George Stuart.
Gobhai: Zal Navroji, Bombay, India.
Goodfellow: Roy Edward, Leigh-on-Sea.
Gray: John Russell, Plymouth.
Guest: Roger, Bournemouth.
Harrison: John Gorton Hunter, B.Arch.(Auck., N.Z.), Auckland, New Zealand.
Hodgson: Ian Richard.
Hunt: Bryan Montague, Dip.Arch.(Manchester), Stockport.
Jess: James Herbert, Lisburn, Co. Antrim.
Johnson: Arthur Gilbert.
Karwe: Narayan Ramkrishna, Kanpur (U.P.), India.
Keen: Denis Frederick Charles.
King: Donald George, Romford.
Kinghorn: David, Dip.Arch.(Abdn.), Aberdeen.
Kinnair: Jack.
Klapprott: Rainer, Northampton.
Kshirsagar: Bhalchandra Damodar, Lucknow (U.P.), India.
Laugharne: Francis Desmonde, B.A.(Sheffield), Sandown, Isle of Wight.
Leitch: George, D.A.(Dundee), Kingskettle.
McCrae: Colin Herbert Ritchie, D.A.(Edin.).
Macdonald: Ronald Yule, Dip.Arch.(Abdn.). Aberdeen.
Mann: (Miss) Pamela Burnip, B.A.(Arch.) (Sheffield), Burton-on-Trent.
Martin: Derrick Robert John.
Meehan: Kenneth Joseph Christopher, Slade Green.
Miles: George Frederick, Crawley.
Millward: Robert Joseph, Dip.Arch.(Sheffield), Chesterfield.
Mistry: Chapsey Rajshi, Bombay, India.
Montague: Henry Thomas.
Morgan: Derek Lawrence Duncan, A.A.Dipl., Nairobi, Kenya.
Munro: Hector Alexander, Edinburgh.
Nel: Cornelius Wilhelm.
Ng: Chee Sen, B.Arch.(Melbourne), Singapore, Malaya.
Ovalekar: Krishnarao Yeshwantrao, Bombay, India.
Pavitt: John Heritage, B.A.(Arch.) (Sheffield).
Pilling: Clifford James, Leeds.
Pilton: Ronald George Alfred.
Poole: Geoffrey Peter Frederick.
Ramsay: Peter Allan Beveridge, Peterculter.
Reidy: William Michael, Monkstown, Co. Dublin.
Rennie: James Newton, Kilmacolm.
Ritchie: William Cruickshank, Edinburgh.
Roberts: David, Caernarvon.
Robinson: John Wilson.
Sadler: Alan James, Solihull.
Sharpe: Dennis Michael Cripps, Bournemouth.
Simmonds: Douglas Claude.
Smart: Reginald Keith, A.S.T.C.(Arch.), Singapore, Malaya.
Smith: Charles Oliver, Dipl.Arch.(Leeds),Leeds.
Smith: John Douglas, Jersey, C.I.
Smith: John Elliott, D.A.(Edin.), Glasgow.
Stephenson: Derek, Wallasey.
Stephenson: (Mrs.) Lilian Adelaide (*née* Durell).
Stimpson: Anthony John, Northampton.
Surtees: John, Sunderland.
Taylor: Ian, Dip.Arch.(Abdn.), Glasgow.
Thorp: Frank, Sydney, N.S.W., Australia.
Tong: Peter, Durham.
Walters: Frank Richard, Dip.Arch.(Birm.), Wolverhampton.
Warren: Frederic Capel, A.P.T.C., Perth, Western Australia.
Williams: Elwyn Thomas, Cardiff.
Williams: Watcyn, Kingston-upon-Thames.
Winther: Peter William Vernon, A.R.I.C.S.
Worthington, Brian, Cambridge.

AS LICENTIATES (40)

Aiano: Leonard George Mackleden, Portland.
Asarpota: Dhamanmal Mulchand, Ahmedabad, India.
Binks: Albert, Morley.
Birkett: Arthur Norman, Carlisle.
Browne: Gerald, Taunton.
Carmichael: Hugh, Banstead.
Dyke: Percy Charles, Barking.
Ferguson: David, Ayr.
Ferguson: Robert, B.A., B.E., Belfast.
Fielding: James, Manchester.
Frost: George, Manchester.

Fulton: James Paton, Paisley.
Hammick: Roger William, T.D., Plymouth.
Hodgess: Claude Hamilton, Truro.
Horner: Gordon Stuart, Dublin.
Hoyle: Joseph Edwin, Leeds.
Johnstone Hogg: Henry Bewick, Bedford.
Leith: Jack, Tadcaster.
Low: George, Glasgow.
McIlveen: Samuel, Belfast.
Matthews: Victor John, Christchurch.
Meacher: Reginald John, Sandwich.
Perrin: Major George William, Kidderminster.
Phelps: Basil L., F.R.I.C.S., Shanklin.
Pritchard: Thomas, Chester.
Reside: Gerald Wilson, M.B.E., E.R.D., J.P., B.Sc., Newry, Co. Down.
Richards: Owen Wyn, Beckenham.
Rogerson: George, Blackburn.
Slater: Robert, Stockport.
Smith: Victor, Blackburn.
Snowball: Robert Henry, A.R.I.C.S., Rossendale.
Stevenson: John Vallance, Ayr.
Surtees: John, North Shields.
Thornhill: William, F.R.I.C.S., Sandbach.
Truman: Harry (Junr.), M.B.E., Norwich.
Turner: Max Duncan, Wakefield.
Vigor: Jack Stanley, Manchester.
Whitaker: Charles William, Leeds.
Wigley: William Richard de Winton, Harrogate.
Wilson: John, Ayr.

ELECTION: 9 OCTOBER 1956

An election of candidates for membership will take place on 9 October 1956. The names and addresses of the candidates, with the names of their proposers, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, R.I.B.A., not later than Monday 30 July 1956.

The names following the applicant's address are those of his proposers.

AS FELLOWS (24)

Ball: Alfred, Dip.T.P. (The Polytechnic) [*A* 1950], Home Office, Architects' Branch, Princeton House, 271 High Holborn, W.C.1; 20 South Island Place, S.W.9. J. W. Williamson, F. H. Crossley, Bertram Carter.

Barnes: Thomas Scott [*A* 1926], 2 Lord North Street, Westminster, S.W.1; Broadmead, Charing, Kent. A. St. B. Harrison, G. W. Silk, G. C. Wilson.

Beardshaw: John Edward [*A* 1939], 186 Oxford Road, Manchester, 13; Holly House, Manchester Road, Knutsford, Cheshire. Prof. R. A. Cordingley, H. T. Seward, Francis Jones.

Booth: Frank, Dipl.Arch., Dipl.T.P.(Leeds), A.M.T.P.I. [*A* 1940], 29 Ropergate, Pontefract, Yorks.; 'Mill Bank', Cawood, Selby, Yorks. Hubert Bennett, Frederick Gibberd, Harold Conolly.

Conder: Neville, A.A.Dipl. [*A* 1947], 35 Thurloe Place, S.W.7; 2 Russell Villas, Ducks Walk, E. Twickenham, Middlesex. Sir Hugh Casson, Frederick Gibberd, E. M. Fry.

Edwards: Ernest John, F.R.I.C.S. [*A* 1940], Director of Housing, City Hall, Westminster, W.C.2; 'Little Warren', 257 Chislehurst Road, Petts Wood, Kent. John Hughes, M. H. Forward, P. G. H. Fawcett.

Farms: Kenneth William [*A* 1939], 130 Crawford Street, W.1; Woodcock Hill, Berkhamsted, Herts. Herbert Kenchington, E. M. Fry, Miss J. B. Drew.

Farms: Mrs. Margaret Frances [*A* 1938], 130 Crawford Street, W.1; Woodcock Hill, Berkhamsted, Herts. Herbert Kenchington, J. F. Howes, F. L. Jackman.

Fowler: William Roy [*A* 1938], Battersea Borough Council, Municipal Offices, Battersea, S.W.11; 11 The Warren, Carshalton, Surrey. The late Geoffrey Fairweather, J. W. H. Barnes, J. McD. Fairweather.

Glashan: William, Dip.Arch(Abdn.) [*A* 1925], 44 Glenburn Drive, Inverness. Lieut.-Colonel D. P. Hall, Lieut.-Colonel Alex Cullen, J. Blackburn.

Harris: Maurice Henry [*A* 1947], Messrs. Hellberg and Harris, 13 Queen Victoria Road, Coventry; 5 Eastleigh Avenue, Coventry. R. Hellberg, L. A. Clarke, A. H. Gardner.

Jackson: Ronald [*A* 1935], Architect's Department, L.C.C., County Hall, S.E.1; 'Breakers', Sea Drive, Sea Lane, Ferring, Sussex. John Holman, Dr. J. L. Martin, A. R. Borrett.

Kaye: Sidney, Dip.Arch.(The Polytechnic) [*A* 1949], 21 Bloomsbury Way, W.C.1; 241 Lavender Hill, S.W.11. D. L. Solomon, E. H. Firmin, P. V. Burnett.

Lacey: John Stephen, A.A.Dipl., A.M.T.P.I. [*A* 1939], 19 Queen Anne's Gate, S.W.1; 37 Hampstead Lane, Highgate, N.6. G. A. Jellicoe, Edward Playne, Bryan Westwood.

Rider: Lionel Sidney [*A* 1948], 25 Sea Road, Bexhill-on-Sea; 'Shirlings', High Street, Ninfield, near Battle, Sussex. Edgar Bunce, C. F. Callow, Stanley Ripley.

Royle: Eric Vernon [*A* 1947], 2 Castle Place, Nottingham; 54 Richmond Drive, Mapperley Park, Nottingham. F. A. Broadhead, T. N. Cartwright, A. E. Eberlin.

Sheridan-Shedden: John Ronald, Dip.Arch. (Cardiff) [*A* 1937], City Architect's Department, Civic Centre, Birmingham; 435 Hagley Road, Edgbaston, Birmingham. A. G. Sheppard Fidler, S. T. Walker, C. E. M. Fillmore.

Stiles: Peter Huish Flamank [*A* 1945], Messrs. Ramsey, Murray, White and Ward, 32 Wigmore Street, W.1; Brockshaw, Park Copse, Dorking, Surrey. Prof. Basil Ward, S. C. Ramsey, K. D. P. Murray.

Strubbe: John A. [1949], Beaufort Studio, Ham Street, Ham, Richmond, Surrey; Beaufort Cottage, Ham Street, Ham. Guy Morgan, Sir Edward Maufe, D. R. Humphreys.

Townsend: Robert Leslie, A.A.Dipl. [*A* 1936], 7 Bridge Street, Bath; Garden Ground, Durrington, Wilts. T. W. Snailum, Frederick Gibberd, F. R. S. Yorke.

Wheeler: John Martin, A.A.Dipl. [*A* 1940], Tunwells Court, Trumpington Street, Cambridge; 104 Barton Road, Cambridge. Peter Bicknell, H. C. Hughes, David Roberts.

Womersley: John Lewis, A.M.T.P.I. [*A* 1934], City Architect, Town Hall, Sheffield, 1; 53 Bents Drive, Sheffield, 11. Norman Culley, Prof. Sir William Holford, J. H. Forshaw.

Woodcock: Percy [*A* 1935], County Architect's Department, Martin Street, Stafford; 6 Rowley Avenue, Stafford. C. M. Coombs, E. B. Norris, L. C. Lomas.

and the following Licentiate who is qualified under Section IV, Clause 4 (*c*) (ii) of the Supplemental Charter of 1925:—

Hopcraft: John Edwin, Park Royal Brewery, N.W.10; 2 Ashbourne Road, Ealing, W.5. T. S. Wood, P. D. Hepworth, L. A. Chackett.

AS ASSOCIATES (37)

The name of a school, or schools, after a candidate's name indicates the passing of a recognised course.

Aitken: Robert John, Dip.Arch.(Abdn.) (Aberdeen School of Arch.: Robert Gordon's Tech. Coll.), 25 Scotstown Gardens, Bridge of Don, Aberdeenshire. E. F. Davies, J. G. Marr, John Maclennan.

Aldersey-Williams: Arthur Grosvenor, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 20 Queen's Gate, S.W.7. Prof. R. Gardner-Medwin, Prof. L. B. Budden, R. R. Young.

Armstrong: William Muir, D.A.(Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 102 Cecil Drive, Corby, Northants. A. E. Gordon, W. G. Dey, D. R. Harper.

Bagshaw: Laurence Ramage, Dip.Arch. (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 27 Clanricarde Gardens, W.2. Prof. Stephen Welsh, H. B. Leighton, W. J. Reed.

Barber: John Peter (Special Final), 127 Bullsmoor Lane, Enfield, Middx. L. S. Sullivan, Edwin Rice, E. D. J. Mathews.

Bermingham: Patrick Joseph (Final), Woodside, Sandyford, Co. Dublin, Ireland. J. G. Butler, Prof. J. V. Downes and applying for nomination by the Council under Bye-law 3(*d*).

Bradley: John Francis, Dip.Arch.(Manchester) (Victoria Univ. Manchester Sch. of Arch.), 69 Albert Road West, Heaton, Bolton. Frank Bradley, Prof. R. A. Cordingley, D. C. Townsend.

Bryan: Robert Ian, A.S.T.C.(Arch.) (Passed a qualifying exam. approved by the R.A.I.A.), 13 Belsize Avenue, N.W.3. Applying for nomination by the Council under Bye-law 3(*d*).

Carpenter: Robert, Dip.Arch.(The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 36 Wellmeadow Road, Hither Green, S.E.13. J. S. Walkden, R. G. Covell, Anthony Minoprio.

Courtenay: Royston Rewell (Final), Trentham House, Riverdale Road, Twickenham Park, Middlesex. C. W. Box, E. A. W. Ixer, R. G. Covell.

Dodgson: James Edwin, B.Arch.(L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), The Beech House, Burton-in-Lonsdale, Via Carnforth, Lancs. Prof. R. Gardner-Medwin, R. R. Young, B. A. Miller.

Fulton: Alastair Macfie, Dip. Arch.(Abdn.) (Aberdeen Sch. of Arch., Robert Gordon's Tech. Coll.), 2 Bank Street, Buckie, Banffshire, Scotland. E. F. Davies, J. G. Marr, John Maclennan.

Giffen: Alfred George, D.A.(Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 15 Broughton Place, Edinburgh, 1. J. R. McKay, W. H. Kininmonth, T. W. Marwick.

Gordon: Max, M.A.(Cantab.), M.Arch.(Harvard) (Arch. Assoc. (London) Sch. of Arch.), 11 Templewood Avenue, N.W.3. Dr. Wells Coates, Prof. Serge Chermayeff, and applying for nomination by the Council under Bye-law 3(*d*).

Greenslade: Robert John, Dip.Arch.(Manchester) (Victoria Univ. Manchester, Sch. of Arch.), Flat No. 8, Stretton House, Church Stretton, Salop. Prof. R. A. Cordingley, E. S. Benson, C. W. McIntosh.

Grunberg: Roman, Dip.T.P.(London) (Final), 43 Kendall Avenue South, Sanderstead, Surrey. C. G. Stillman, Ernest Seel and applying for nomination by the Council under Bye-law 3(*d*).

Henson: Felton James, Dip.Arch.(Sheffield) (Univ. of Sheffield, Dept. of Arch.), c/o Rose Cottage, North Cray, Sidcup, Kent. Prof. Stephen Welsh, H. B. Leighton, A. E. Henson.

Hepworth: Brian, B.A.(Arch.) (Sheffield) (Univ. of Sheffield: Dept. of Arch.), 138 Clifton, York. Prof. Stephen Welsh, H. B. Leighton, H. B. S. Gibbs

Heywood: Stanley Owen, B.A.(Arch.) (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 2A Bowling Green Street, Warwick. Prof. Stephen Welsh, H. B. Leighton, W. S. Hattrell.

Hills: Donald William (Final), 11 Allenby Road, Waterloo, Poole, Dorset. D. W. Aldred, C. C. Shaw, F. B. Pooley.

Jamieson: James Hugh Vernon, Dip.Arch. (Abdn.) (Aberdeen Sch. of Arch.: Robert Gordon's Tech. Coll.), 56 Braeside Terrace, Mannofield, Aberdeen. E. F. Davies, G. A. Mitchell, J. G. Marr.

Jobling: Edwin, A.A.Dipl.(Arch. Assoc. (London): Sch. of Arch.), 'Teremok', 42 Woodcote Hurst, Epsom, Surrey. Paul Nightingale, T. A. Eaton, R. L. Banks.

McLaughlin: Peter F., B.Arch.(N.U.I. Dublin) (Univ. Coll., Dublin, Ireland; School of Arch.), 19 Ailesbury Road, Dublin. Prof. J. V. Downes, J. J. Robinson, D. P. Hanly.

Mitchell: Ronald, D.A.(Dundee) (Dundee Coll. of Art: Sch. of Arch.), 26 Mossgiel Crescent, Dundee. John Needham, T. H. Thoms, A. F. S. Wright.

Murdoch: Denis Harwood Mackenzie, B.Arch. (C.T.) (Passed a qualifying Exam. approved by the I.S.A.A.), 27 Potter Street, Worksop, Notts. Prof. L. W. T. White, and applying for nomination by the Council under Bye-law 3(*d*).

Osborne: Andrew Harold (Final), 40 Mansfield Road, Ilford, Essex. Applying for nomination by the Council under Bye-law 3(*d*).

Pacitti: Cosimo, Dip.Arch.(Abdn.) (Aberdeen Sch. of Arch.: Robert Gordon's Tech. Coll.), 70 Garthdee Road, Aberdeen. E. F. Davies, J. G. Marr, John Maclennan.

Plester: Murray Julian Gaffee, Dipl.Arch. (Oxford) (Sch. of Tech. Art and Commerce, Oxford: Sch. of Arch.), 34 Montpellier Spa Road, Cheltenham, Glos. O. H. Nuttall, Reginald Cave, G. W. H. Ryland.

Robertshaw: John Russell (Special Final), 'The Chalet', Ruxbury Road, Chertsey, Surrey. T. E. Scott, E. A. W. Ixer, W. J. King.

Russell: Barry Rivers, A.A.Dipl.(Arch. Assoc. (London): Sch. of Arch.), Greyroof, Kiln Lane, Headington, Oxford. Arthur Korn, F. L. Preston, J. M. Easton.

Scattergood: Derek, Dip.Arch.(Sheffield) (Univ. of Sheffield, Dept. of Arch.), 'Caradoc', Manor Avenue, Brimington, Nr. Chesterfield, Derbyshire. Prof. Stephen Walsh, H. B. Leighton, F. Marsden.

Torkington: Basil, Dip.Arch.(Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 12 Woodham Road, Northern Moor, Wythenshawe, Manchester. Prof. R. A. Cordingley, Dr. W. A. Singleton, E. S. Benson.

Trevithick: Morris Henry (Passed a qualifying Exam. approved by the N.Z.I.A.), c/o Bank of New South Wales, Berkeley Square, W.1. J. I. King and the President and Hon. Sec. of the N.Z.I.A. under the provisions of Bye-law 3(*a*).

Waddington: Samuel (Final), 44 Lyndhurst Avenue, Blackpool, Lancs. H. T. Jackson, Halstead Best, C. H. MacKeith.

Watson: Henry Barnett Pont, Dip.Arch.(Abdn.) (Aberdeen Sch. of Arch.: Robert Gordon's Tech. Coll.), 92 Fernhill Drive, Mastrick, Aberdeen. E. F. Davies, J. G. Marr, John Maclennan.

Westwood: Peter Alexander, B. Arch.(Rand), S.P.Dip. (Passed a qualifying Exam. approved by the I.S.A.A.), 1 Parliament Hill, N.W.3. Applying for nomination by the Council under Bye-law 3(*d*).

Whittaker: Eric (Final), Architect's Department, Town Hall, Middleton, Manchester. G. A. Crockett, L. S. Stanley, G. S. Bridgman.

AS LICENTIATES (47)

Aylward: John James Maurice, 17 Upper Pembroke Street, Dublin; Boden Park House, Ballyboden, Rathfarnham, Co. Dublin. P. J. Munden and the President and Honorary Secretary of the Royal Institute of the Architects of Ireland under Bye-law 3(*a*).

Bell: Thomas, Education Architect's Dept., 40 Academy Street, Belfast; 6 Upton Avenue, Finaghy, Belfast. R. S. Wilshere, T. R. Eagar, A. F. Lucy.

Booth: Charles Ernest Thomas, Barclay's Bank Chambers, Broad Street, Hereford; 'Newgrove', 123 Whitecross Road, Hereford. H. J. Powell, E. E. James, S. T. Walker.

Bucknell: Frank Thomas, Municipal Offices, High Street, Guildford, Surrey; 'St. Mary's Garden', Worplesdon, nr. Guildford, Surrey. N. D. Quick, R. D. Scott, G. I. C. Highet.

Caton: Samuel Charles, c/o Messrs. Hollins Jones & Oldacre, Lloyds Bank Chambers, Newcastle, Staffs; 24 Bramfield Drive, Newcastle. G. Hollins, D. C. Campbell, W. B. Oldacre.

Claypole: Bernard William Henry, Northamptonshire County Council, Architect's Department, Guildhall Road, Northampton; 3 Norman Road, Northampton. A. N. Harris and the President and Honorary Secretary of the Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects under Bye-law 3(*a*).

Cripps: William Harold Ching, 123 London Road, Headington, Oxford; 'Twelve', Ambleside Drive, Headington, Oxford. G. R. Hutton, K. A. Stevens, F. T. Pritchard.

Donaldson: Kenneth Cecil, 80 Oatlands Drive, Weybridge, Surrey. Henry Elder, Colonel S. H. Fisher, Martin Skinner.

Evans: David Thomas Daniel, Architect to the Abergavenny R.D.C., Council Offices, Monk Street, Abergavenny; Hollycroft, Abergavenny. Johnson Blackett, C. L. Jones, C. F. Bates.

Ferguson: James, 31 and 33 Castle Street, Dumfries; 'St. Theresa's', Glasgow Road, Dumfries. W. E. Hollins and applying for nomination by the Council under Bye-Law 3(*d*).

Gratrix: Henry Holmwood, 7 St. Helens Road, Swansea; 'Ashmead', Derwen Fawr Road, Sketty, Swansea. F. L. Halliday, C. G. Agate, Henry Elder.

Harrington: Frank Harvey, 4 Clarendon Street, Nottingham; 212, Rutland Road, West Bridgford, Nottingham. T. N. Cartwright and the President and Hon. Secretary of the Nottingham, Derby and Lincoln Society of Architects under Bye-law 3(*a*).

Haybittle: Ernest Joseph, c/o Austin Blomfield, Esq., 1 New Court, Temple, E.C.4; 109 St. Andrews Road, West Worthing, Sussex. Austin Blomfield, Walter Marmorek and applying for nomination by the Council under Bye-law 3(*d*).

Hayes: Frank, 119 Hall Drive, Chilwell, Nottingham. R. W. Cooper, F. Marsden, C. H. Calvert.

Hendy: Arnold F., 6 Leinster Street S., Dublin, Eire; 'Havrincourt', Churchtown Road, Dublin. J. J. Robinson, P. J. Munden, J. G. Butler.

Henry: Geoffrey Cecil Francis, 63 and 64 Upper O'Connell Street, Dublin; 20, Ashfield Park, Stillorgan Road, Dublin. J. J. Robinson, P. J. Munden, Vincent Kelly.

Hunt: Cecil Albert, Borough Architect's Dept., County Borough of West Ham, 70 West Ham Lane, Stratford, E.15; 1 Emerson Drive, Hornchurch, Essex. T. E. North, C. C. Shaw, R. J. L. Slater.

Irving: Thomas Kerr, 4 Castle Street, Stranraer; 1 Linwood Gardens, Stranraer. G. Steel, R. G. Lindsay, J. A. Carrick.

Jones: Jack Osborne Wills, Architect's Dept., Town Hall, Woolwich, S.E.18; 41 Shakespeare Road, Bexleyheath, Kent. Samuel Taylor, A. B. Waters, S. W. Ackroyd.

Kennedy: Thomas Stanley Aitchison, The Royal Bank of Scotland, St. Andrew Square, Edinburgh 2; 70 Ashley Terrace, Edinburgh, 11. J. R. McKay, W. H. Kininmonth, W. I. Thomson.

Latter: William Frederick George, 20 Sea Place, West Worthing, Sussex; 12 Regency Square, Brighton, Sussex. Applying for nomination by the Council under Bye-law 3(*d*).

Lees: Isaac Percy Dagley, Newmarket Urban District Council Offices, Bury Road, Newmarket, Suffolk; 6 Cheveley Road, Newmarket. M. A. Shute and the President and Hon. Secretary of the Essex, Cambridge and Hertfordshire Society of Architects under Bye-law 3(*a*).

Leigh: Herbert Gordon, 305 St. Albans Road, Hemel Hempstead, Herts. F. T. Dear, S. C. Ramsey, E. B. Webber.

McAndrew: William, Dunecht Estates Office, Dunecht, Aberdeen; Cripplehillock, Dunecht, Aberdeen. J. G. Marr, A. G. R. Mackenzie, E. F. Davies.

McEwan-Waghorn: Charles Ewan, c/o Messrs. Alison & Hutchison & Partners, 22, Carlyle Road, Kirkcaldy, Fife; 'The Laurels', Dura Den, By Cupar, Fife. R. F. Hutchison, J. Holt, P. G. Hayward.

McGibbon: David, 40 Bloomgate, Lanark, Scotland; 51 Cleveland Gardens, Newcastle upon Tyne, 7. Applying for nomination by the Council under Bye-law 3(*d*).

Marsden: Harold, 27 High Street, Newhaven, Sussex; 'Brow Cottage', Ambleside Avenue, Telscombe Cliffs, Sussex. S. C. Clark, R. H. Uren, C. W. Box.

Matthews: John Graham, c/o Messrs. Wm. Saunders & Partners, 24, Castle Gate, Newark-on-Trent, Notts.; 'Charnwood', Sandfield Way, Valley Prospect, Newark-on-Trent. Ernest Frear, T. W. Haird, S. Penn Smith.

Ord: Austin, Asst. Architect, Northumberland County Council; 19 Warwick Road, South Shields. T. A. Page, H. A. Hill, G. E. Charlewood.

Painter: Alan, Messrs. Harry Bloomer & Son, 73 Hagley Road, Birmingham, 16; 12 Hemyock Road, Selly Oak, Birmingham, 29. H. C. Bloomer, W. N. Hawkes, Seymour Harris.

Pentland: Thomas Parkhill, c/o Messrs. Samuel Stevenson & Sons, 83 Royal Avenue, Belfast; 36 Bangor Road, Holywood, Co. Down, Ulster. A. F. Lucy, R. H. Gibson, E. D. Taylor.

Pitt: Henry Stapleton, 25 Berkeley Square, W.1; 'Long Ridge', Bangors Road South, Iver, Bucks. A. S. Gray, S. B. Caulfield, W. H. Watkins.

Powell: Vivian Gough, A.M.I.C.E., Architect to the Cwmbran U.D.C., Council Offices, Cwmbran, Mon.; 51 Fields Road, Oakfield Park, Cwmbran. C. F. Ward, Johnson Blackett, C. F. Bates.

Richards: John Melville, Schools Architect's Dept., 22 Euston Road, Great Yarmouth; 'The Lodge', Market Road, Burgh Castle, Great

Yarmouth. W. G. Davies, W. L. Clunie, C. J. Tomkins.

Royle: Harold, Architect's Dept., Lancashire County Council, Preston; 'Fern Lea', Garstang Road, Little Carleton, Blackpool. G. S. Pester, G. G. Speight and applying for nomination by the Council under Bye-law 3(*d*).

Salter: Donald William, City Architect's Dept., New Council House, College Green, Bristol, 1; 1 Guinea Lane, Fishponds, Bristol. Frank Mellor and the President and Honorary Secretary of the Wessex Federal Society of Architects under Bye-law 3(*a*).

Scanlan: William Henry, F.R.I.C.S., 56 Buckingham Gate, Westminster, S.W.1; 11 Broad Walk, South Woodford, E.18. A. W. Kenyon, Sydney Tatchell, Denis Poulton.

Schofield: Harold Dudley, 11 Musters Road, West Bridgford, Notts.; 25 Lenton Road, The Park, Nottingham. H. H. Dawson, R. W. Cooper, R. W. Schofield.

Shrimpton: Stuart Norman, T.D., 54 Broad Street, Ludlow, Shropshire; Castle House, Ludlow. A. G. Chant, C. W. McIntosh, G. C. Gadd.

Smith: Frank John, F.R.I.C.S., Midland Bank Chambers, 1/3, Powis Street, Woolwich; Fivewents House, Swanley, Kent. J. S. Walkden, Bertram Carter, G. E. Burgess.

Soper: John, 22 Russell Square, W.C.1; 2 Meadow Road, Burpham, Guildford, Surrey. Lord Mottistone, Oliver Hill, L. M. Gotch.

Tonge: William, Ministry of Housing and Local Government, Reading, Berks.; 12 Mayfield Road, Walton-on-Thames, Surrey. John Greaves, J. W. Wilcox, E. Forster.

Varndell: Albert James, 31 Northern Avenue, South Benfleet, Essex. F. G. A. Hall and applying for nomination by the Council under Bye-law 3(*d*).

Ventress: Herbert Harvey Crowther, c/o L. M. Austin, Esq., 8 Parkstone Road, Poole, Dorset; 106 Redhill Drive, Bournemouth, Hants. L. M. Austin, Philip Hardy, G. W. Jackson.

Warren: James Herbert, 5 Angel Hill, Bury St. Edmunds; 'The Willows', Fornham All Saints, Bury St. Edmunds. Applying for nomination by the Council under Bye-law 3(*d*).

Wicks: Charles Alec Gordon, B.E.M., Town Hall, Reigate, Surrey; 379 Stafford Road, Caterham Valley, Surrey. Briant Poulter and the President and Honorary Secretary of the South Eastern Society of Architects under Bye-law 3(*a*).

Williams: Herbert R., 30 Chapel Street, Southport; 59A Belmont Street, Southport. H. H. Archer, Alfred Crampton, H. H. Smith.

ELECTION: 6 NOVEMBER 1956

An election of candidates for membership will take place on 6 November 1956. The names and addresses of the overseas candidates, with the names of their proposers, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, R.I.B.A., not later than Friday 12 October 1956.

The names following the applicant's address are those of his proposers.

AS FELLOWS (3)

Benjamin: Joshua Moses [*A* 1947], 'L' Block, Central Public Works Department, New Delhi, India; 82 Pataudi House, New Delhi. S. K. Joglekar, R. L. Gehlote, J. R. Talpade.

Hancock: Thomas Herbert Hubert, Dipl.Arch. (U.C.L.), Dip.T.P.(The Polytechnic), M.T.P.I. [*A* 1938], Senior Architect, Public Works Department, Singapore 6, Malaya; 6 Leonie Hill Flats, Singapore 9. W. I. Watson, K. A. Brundle, H. L. Bloomfield.

Williams: Horace [*A* 1936], Permanent House, P.O. Box 73, Kitwe, N. Rhodesia. A. L. Spencer, Prof. R. A. Cordingley, J. S. Walkder.

AS ASSOCIATES (22)

Aitchison: Mareuil de Villebois, B.Arch.(Rand) (Passed a qualifying Exam. approved by the I.S.A.A.), 1 Old Mutual Building, Stateway, Civic Centre, Welkom, O.F.S., S. Africa. Applying for nomination by the Council under Bye-law 3(*d*).

Balasubramaniam: Rajanathan Sri, Dip.Arch. (Melbourne) (Passed a qualifying Exam. approved by the R.A.I.A.), 7 Alexandra Road, Wellawatte, Colombo 6, Ceylon. Harry Winbush, Prof. B. B. Lewis, J. C. Nilgiria.

Caporn: Duncan Stanley, B.Arch.(Melbourne) (Passed a qualifying Exam. approved by the R.A.I.A.), 15A Wave Street, Elwood S.3, Melbourne, Victoria, Australia. H. S. Winbush, P. H. Meldrum, L. M. Perrott.

Cubis: Garth, A.S.T.C.(Arch.) (Passed a qualifying Exam. approved by the R.A.I.A.), 236 Queen Street, Ashfield, N.S.W., Australia. Sir Arthur Stephenson, G. L. Moline, Miss Ellison Harvie.

David: Solomon Arulanandam, B.Arch.(Melbourne) (Passed a qualifying Exam. approved by the R.A.I.A.), Architectural Branch, Public Works Dept., Colombo, Ceylon. Prof. B. B. Lewis, R. G. Parker, Mrs. Hilary Lewis.

Eaton: Trevor Frederick, B.Arch.(C.T.) (Passed a qualifying Exam. approved by the I.S.A.A.), United Buildings, Main Street, Port Elizabeth, S. Africa. Prof. L. W. T. White, O. Pryce Lewis, F. O. Eaton.

Fathers: John (Passed a qualifying Exam. approved by the N.Z.I.A.), G.P.O. Box 473, Dunedin, New Zealand. J. H. White and the President and Hon. Secretary of the New Zealand Institute of Architects under Bye-law 3(*a*).

Harris: Antony Walter, B.Arch.(Sydney) (Passed a qualifying Exam. approved by the R.A.I.A.), 128 Falconer Street, Armidale, N.S.W., Australia. E. L. Thompson, Prof. H. I. Ashworth, G. L. Moline.

Hunter: Leslie Oliver (Special Final), P.O. Box 5054, Nairobi, Kenya. E. D. Hill, L. G. Jackson, R. Q. Scammell.

Imlach: Ian Howie Adam, Dip.Arch.(Abdn.) (Aberdeen Sch. of Arch.: Robert Gordon's Tech. Coll.), c/o Messrs. Swan and MacLaren, E.11, Hong Kong Bank Chambers, Singapore, Malaya. E. F. Davies, G. A. Mitchell, J. G. Marr.

Johnson: Richard Norman, B.Arch.(Sydney) (Passed a qualifying Exam. approved by the R.A.I.A.), 18 Ferndale Street, Chatswood, N.S.W., Australia. K. H. McConnel, J. C. Fowell, E. L. Thompson.

Kandavel: Velayuthampillai, Dip.Arch.(Melbourne) (Passed a qualifying Exam. approved by the R.A.I.A.), Paskara Villa, Nugegoda, Ceylon. H. S. Winbush, S. T. Parkes, W. P. R. Godfrey.

Leong: Thoe Soon, B.Arch.(Sydney) (Passed a qualifying Exam. approved by the R.A.I.A.), 4 Yap Ah Loy St. (1st Floor), Kuala Lumpur, Malaya. C. Y. Koh, W. I. Watson, T. A. L. Concannon.

Lithwick: Sidney, B.Arch(McGill) (McGill Univ., Montreal, Canada, Sch. of Arch.), 575 Laurier Avenue W., Ottawa, Ontario, Canada. Dr. A. J. Hazelgrove, H. L. Fetherstonhaugh, J. R. Smith.

Pledger: Ernest George (Passed a qualifying Exam. approved by the N.Z.I.A.), c/o Messrs. McKeon and Patience, P.O. Box 1962, Wellington, C.1, New Zealand. J. I. King, W. G. Young, W. K. Cook.

Purssey: Ronald Swan, Dip.Arch.(Queensland) (Passed a qualifying Exam. approved by the R.A.I.A.), 12 Gregory Street, Clayfield, N.14, Brisbane, Queensland, Australia. R. P. Cummings, J. H. Weller, J. M. Collin.

Rennie: Arthur (Passed a qualifying Exam. approved by the I.S.A.A.), P.O. Box 7, Port Elizabeth, S. Africa. F. O. Eaton, Prof. L. W. T. White, O. Pryce Lewis.

Shapiro: Bernard, B.Arch.(C.T.) (Passed a qualifying Exam. approved by the I.S.A.A.), 13 Annerley Road, Rosebank, Cape Town, S. Africa. Prof. L. W. T. White, H. Niegeman, O. Pryce Lewis.

Shifrin: Isidore, B.Arch.(C.T.) (Passed a qualifying Exam. approved by the I.S.A.A.), Mutav, Norman Grove, Sea Point, Cape, S. Africa. Prof. L. W. T. White and applying for nomination by the Council under Bye-law 3(*d*).

Sweet: Barry Austin, B.Arch.(Auck., N.Z.) (Passed a qualifying Exam. approved by the N.Z.I.A.), Messrs. Malcolm and Sweet, Herschell Street, Napier, New Zealand. J. I. King and the President and Hon. Secretary of the N.Z.I.A. under Bye-law 3(*a*).

Uren: Reginald Norman, Dip.Arch.(Auck., N.Z.) (Passed a qualifying Exam. approved by the N.Z.I.A.), 112A Dominion Road, Auckland, New Zealand. Prof. C. R. Knight, Prof. A. C. Light, W. H. Gummer.

Wilson: Derek John, B.Arch.(Auck., N.Z.) (Passed a qualifying Exam. approved by the N.Z.I.A.), 'Sunnybank', Manuka Street, Masterton, New Zealand. Prof. C. R. Knight, Prof. A. C. Light and the President and Hon. Secretary of the N.Z.I.A. under Bye-law 3(*a*).

Notes from the Minutes of the Council

MEETING HELD 19 JUNE 1956

Appointments. (*a*) *International Association of Bridge and Structural Engineers: R.I.B.A. Representative at International Congress,* Arthur Bailey [*F*]. (*b*) *R.I.B.A. Architecture Bronze Medal: The South Wales Institute of Architects: R.I.B.A. Representative on Jury to consider award*—J. Nelson Meredith [*F*], President Wessex Federal Society of Architects. (*c*) *R.I.B.A. Representative on Court of Governors of University of Exeter*—H. M. R. Drury [*F*]. (*d*) *National Smoke Abatement Society Annual Congress, Southport: R.I.B.A. Representative*—E. H. Honeyburne [*A*], President, Southport Architectural Society. (*e*) *Council for Codes of Practice: R.I.B.A. Representative*—Thomas Mitchell [*A*] in place of P. V. Burnett [*F*]. (*f*) *R.I.B.A. Representatives on B.S.I. Committees: SAB/9—Glossary of Sanitation Terms*—J. W. Buchanan [*F*]. *WPC/2—Classification of Wood Preservatives, WPC/2/1—Classification of Wood Preservatives, Drafting Committee*—J. C. Kennedy [*A*] in place of K. C. Twist [*A*].

Birthday Honours. The congratulations of the Council were conveyed to the members on whom Her Majesty the Queen had conferred awards, as announced in the June JOURNAL.

R.I.B.A. London Architecture Bronze Medal. It was reported that the Jury entrusted with making the award for the year ended 31 December 1955 had made their award in favour of the Passenger Handling Building, Central Terminal Area, London Airport, designed by Frederick Gibberd, C.B.E. [*F*].

R.I.B.A. Architecture Bronze Medal: Hampshire and Isle of Wight Architectural Association. It was reported that the Jury entrusted with making the award for the four-year period ended 31 December 1954 in the area of the Hampshire and Isle of Wight Architectural Association had made their award in favour of the factory built for Messrs. L. M. Van Moppes and Sons, Ltd., Basingstoke, designed by Leslie Wood [*A*]. The award was formally approved by the Council.

R.I.B.A. Architecture Bronze Medal: The Western Australian Chapter, R.A.I.A. It was reported that the Jury entrusted with making the award for the five-year period ended 31 December 1955 in the area of the Western Australian Chapter had made their award in favour of the Nurses' Quarters Building attached to the King Edward Memorial Hospital, Perth, designed by the Public Works Department (Principal Architect, A. E. Clare, F.R.A.I.A. [*F*]). The award was formally approved by the Council.

British Architects' Conference 1956. A hearty vote of thanks was passed unanimously in favour of the President and Council of the Norfolk and Norwich Association of Architects and all those who had assisted in the successful Conference held at Norwich.

Completion of Premises Fund. It was reported that a donation of two guineas to the Completion of Premises Fund had been received from the Metropolitan Association of Chief Housing Officers and Architects. Members of Council expressed their appreciation.

Amendment to Rules: The South Wales Institute of Architects. Approval was given to an amendment to Rule 6 dealing with the constitution of Branch Executive Committees of the South Wales Institute of Architects.

Membership. The following members were elected: as Fellows 12; as Associates 111; as Licentiates 40.

Students. 100 Probationers were elected as Students.

Applications for Election. Applications for election were approved as follows: *Election 9 October* 1956: as Fellows 12, as Associates 32, as Licentiates 47. *Election 6 November* 1956 (*Overseas Candidates*): as Fellows 3, as Associates 22.

Resignations. The following resignations were accepted with regret: Robert Lutyens [*F*], Mrs. Pauline Mary Tollemache Brooke [*A*], Miss Marguerite Yvonne Alden (Mrs. Rybay) [*A*].

Applications for Transfer to Retired Members' Class under Bye-law 15. The following applications were approved: as Retired Fellow: Arthur John Stedman; as Retired Associate: Collings William Brown; as Retired Licentiate: Alfred Norman Peto.

Obituary. The Secretary reported with regret the death of the following members: Sir Frank Brangwyn, R.A., LL.D., Hon. R.S.A., Member of the Institut de France; Academy of St. Luke, Rome; Royal Academy, Berlin [*Hon. A*], Sir John Stirling Maxwell, Bt., K.T. [*Hon. A*], Eugenio P. Baroffio [*Hon. Corr. Member*], Homi Framjee Billimoria [*F*], John Austin Dempster [*F*], Thomas McKay Galbraith [*F*], George Howard Herring [*F*], Donald John Moss [*F*], Donald John Grant Plumley [*F*], Joseph Vermont [*F*], C. Lyn Howell [*A*], Joseph Haydn Miller [*A*], Albert Wilby [*A*], Sidney Albert Bettesworth [*L*], Victor Edward Croll [*L*], John Evan Davies [*L*], Frederick Haswell [*L*], Harold Samuel Haughton [*L*], William Alfred Hunt [*L*], Percy Barnwell Hunter [*L*], Harry Sloan McNair [*L*], William Douglas Owen [*L*], John Paley Parrish [*L*], Frederick David Rice [*L*], Frederick Robson [*L*], Richard Harold West [*L*], Thomas Graveley Angell [*Retd. L*], Charles Greenwood [*Retd. L*], Walter Samuel Rumsby [*Retd. L*], James Walter Shaft [*Retd. L*].

By resolution of the Council the sympathy and condolences of the Royal Institute have been conveyed to their relatives.

Obituaries

Sir Frank Brangwyn, R.A., LL.D., Hon. R.S.A. [*Hon. A*], died on 12 June. We are indebted to Sir Percy Thomas, O.B.E., LL.D., M.T.P.I. [Past-President] for the following appreciation:

'By the death of Frank Brangwyn, the Institute has lost one of its most distinguished Honorary Associates. THE TIMES and other papers have given long and complete records of his achievements and honours, and I would just like to add a personal note of how this remarkable man appealed to me.

'I would say, first of all, by the vigour of his drawing and the splendour of his colour, particularly in the period which his friends call "The Buccaneer" period. Then I think there was something in his breadth of vision which I always felt came from his early longing for and adventures at sea.

'To an architect I think his series of bridges are among the most striking of his water colours. They have been illustrated in books by Christian Barman and by W. Shaw Sparrow. Among my own collection of Brangwyns I have St. Martin's Bridge, Toledo, and Porto Felice, Palermo—the latter almost a rendered architectural drawing.

'Although he was a fine painter in water colours and oils, he also produced some fine etchings, many of them of architectural interest. His father, who was an architect, was Anglo-Welsh, his mother being of pure Welsh descent. It is however as a painter of murals that Brangwyn is best known; in that field he was supreme. Unfortunately a lot of his best work is not in this country. There are the Royal Exchange and Skinners' Hall in London, Christ's Hospital, Horsham, and a church at Leeds, whilst in America the Missouri State Capitol, the Court House, Cleveland, Ohio, Parliament Buildings, Winnipeg, and the Rockefeller Centre, New York, are some of his outstanding works.

'The mural depicting the "Signing of the Magna Carta" at Cleveland is a particularly beautiful example of his work, whilst the murals in the lift hall of the Rockefeller Centre, although in a medium not usually associated with Brangwyn (the promoters laid down that they were to be in sepia brown and white) are nevertheless an inspiring example of his work. They were the last great murals that he painted and he began them shortly after his British Empire panels had been rejected by the Royal Fine Art Commission.

'I met Frank Brangwyn during the erection of the Swansea Civic Centre and although he would never come down to Swansea to see the panels in position he very kindly helped me in the interior decoration of the hall which was to accommodate them.

'There is no doubt that the rejection of the panels was the greatest disappointment of his life. He always felt that they were his greatest work, and although we were able to provide ample space for them all to be exhibited in one room, it provides nothing like the setting for which they were designed. In the corridors surrounding the hall is a fine collection of his studies and sketches for the panels themselves, some crayon, some in colour, and all beautiful examples of draughtsmanship.

'An old friend who had frequent contact with Brangwyn right up to the end tells me that he was not the complete hermit which he was generally reputed to be, but was a kind and generous friend and did a lot of good in this world.

'It is difficult for an admirer of Brangwyn to avoid superlatives, but I often wonder whether we shall ever see his like again.'

Major H. C. Corlette, O.B.E., [*Retd. F*], past Member of Council, died on 23 April, aged 86.

Major Corlette was born in Sydney, New South Wales, where he was educated at the grammar school and university, and later at London University. He attended the Royal Academy School of Architecture and the Slade School, studying under John Belcher.

Major Corlette was architect to the Imperial College of Tropical Agriculture, Trinidad, and to the Government of Jamaica, to the North Lincolnshire Church Building Committee and to Netley Hill Estate, Hampshire. He carried out work at Clifton College, Winchester College, Burton Manor, Cheshire, and designed the Kensington War Memorial. His many publications include a history of Chichester Cathedral; *Oxford: A School of Architecture*; and *Spanish Town, Jamaica*. He served in the First World War with The King's Oversea Dominions Regiment attached to the Royal Field Artillery and in the Ministry of Agriculture.

Major Corlette was R.I.B.A. Donaldson Medallist 1890–91, Owen Jones Student 1896, Institute Medallist (Essays) 1899, and was awarded a Medal of Merit, Pugin Studentship 1899. He served for many years on the Literature Standing Committee, Unification and Registration Committee, London Building Acts Committee, R.I.B.A. Exhibition Joint Committee, R.I.B.A. Premises Committee and Finance and House Committee and as an Advisory Member of the Board of Architectural Education and a member of the British Section of the Franco-British Union of Architects. He was an Honorary Fellow of the Royal Australian Institute of Architects and an Honorary Fellow and Gold Medallist of the Institute of Architects of New South Wales.

John Austin Dempster [*F*] died on 10 May, aged 64.

Mr. Dempster began his architectural career as a pupil in Glasgow and at the Glasgow School of Art, where he was influenced at an early stage by the work of John Rennie Mackintosh. His love of the Western Highlands and his interest in landscape led him a few years later to become an assistant to Thomas Mawson of Lancaster.

During the First World War Mr. Dempster served with the Gordon Highlanders and afterwards set up in private practice in London in

partnership with P. C. Boddy. Together they won the competition for Topsham Village Hall and their design for the Calcutta Council Chamber, although it was not placed first in the competition, was thought highly of by many.

Shortly afterwards Mr. Dempster gave up private practice and was appointed to the staff of the Central Miners' Welfare Committee, later the Miners' Welfare Commission. He later transferred to the Coal Board, becoming Chief Architect to its North-Eastern Division. He held this post until his death.

Mr. C. G. Kemp [*F*], Architect to the Central Electricity Authority, writes of him:

'John Dempster held very strong views about most things for which he cared and often expressed them forcefully and amusingly. A predilection for the mixed metaphor and a belief that everyone liked golf were two of his better known and more amusing idiosyncrasies. He would have been the last person to wish to be delineated as a paragon, but he personified "A man's a man for a' that", and those who knew him well will remember him as a sincere, loyal, generous and likeable man.'

Henry Charles Portsmouth [*Retd. F*], Past President of the South Wales Institute of Architects, died on 6 February, aged 93.

Mr. Portsmouth was born in Reading in 1862, the son of a land and estate agent and valuer. On leaving Reading Grammar School he was articled to Messrs. Morris and Stallwood, Reading, who were surveyors for the county. He subsequently went to Messrs. Seward and Thomas of Cardiff as manager of their Swansea branch. Later he bought the Swansea practice and continued it independently for many years. During this time he was connected with the erection of what are thought to have been the first reinforced concrete buildings in this country—silos and a provender mill for Messrs. Weaver and Co. of Swansea. As supervisory architect he was sent by the company to France to study what was then known as François Hennebique's new "Ferro-Cement Process." This was in 1897.

Among his other works are St. Philip's Church, Swansea, and alterations to St. Mary's Parish Church; the first group of Townhill houses for Swansea Corporation, and other housing schemes. He was also architect to the South Wales Institution for the Blind at Swansea and for the Royal Cambrian Institution for the Deaf and Dumb. He was honorary art curator at the Royal Institution of South Wales, on the council of which he served. He was a specialist in arbitrations and architectural legal work. He was President of the South Wales Institute of Architects 1921–22.

Launcelot Hugh Ross, M.C. [*F*], died on 30 January 1956, aged 71.

Mr. Ross was senior partner in the firm of Launcelot H. Ross and Lindsay, of Glasgow. Mr. Archibald T. Lindsay [*A*] carries on the practice under the same title.

Mr. Ross was born in Aberdeen in 1885 and educated at Aberdeen Grammar School. He was articled to Sir John Burnet and began practising in Glasgow in 1912. He served during the 1914–18 war as a Staff Officer and was awarded the Military Cross. Among his works are the Auxiliary Air Force Headquarters in Glasgow, Inverclyde Hostel for Sailors in Greenock, the North of Scotland Bank in St. Vincent Street, Glasgow, and other branches, churches at Drumchapel, Clydebank and Govan, and primary schools at Johnstone and Cranhill, Glasgow, a large housing scheme at Howwood Road, Johnstone, and houses for the permanent staff of the Glasgow Territorial and Auxiliary Forces Association. He was also responsible for the modernisation of a number of shops and warehouses in Glasgow and for the erection, under the general direction of the late Mr. Thomas Tait [*F*] (Sir John Burnet's partner), of the Palace of Engineering, the Palace of Art and the tower at the Empire Exhibition, Bellahouston Park, in 1938, and after the war for the conversion of the Palace of Art into its present use as a community centre.

Mr. Ross was a member of the Royal Company of Archers—the Queen's bodyguard in Scotland.

Douglas Adshead Grant [*F*] died suddenly on 28 January from coronary thrombosis. He was 42 years of age.

Mr. Grant was born in India and educated at Silcoates School, Yorkshire, and thence went to the Liverpool School of Architecture, where his mother's cousin, Professor Stanley Adshead, had held the first chair of Civic Design in England before moving on to become London University's first Professor of Town Planning.

At the beginning of the war Mr. Grant volunteered for the Navy and became a Lieut.-Commander. In the early part of the war he shared in exciting adventures in small craft and was then seconded for special duties as a technical officer. These included work on preparation for the raid on Dieppe and on the Mulberry harbours. He was also concerned with Professor J. D. Bernal in the design of 'Habakkuk'—an iceberg ship intended to serve as a base for fighter planes in mid-Atlantic—and in this connection he went with (then) Mr. Winston Churchill to Quebec, where a demonstration was carried out before the Combined Chiefs of Staff. After a period in Washington he was attached to Combined Operations Headquarters until the end of the war.

Since then he had been engaged in private practice in London.

John Campbell, D.C.M., M.M. [*A*], died on 31 December 1955, on his 69th birthday.

As a young man Mr. Campbell was articled in Manchester but his training was interrupted by the First World War in which he served as a private with the Royal Scots and was awarded the Military Medal and the Distinguished Conduct Medal. He returned to Manchester and was for a time with the Ministry of Works and then with a private architect. He was elected Associate in 1921. It was at this time that he began to take an interest in the education of building and architectural students and after some years of combining private practice with part-time teaching at Manchester Technical College he was appointed the first Head of the Department of Building at Huddersfield Technical College. He held this post until he retired in 1948.

Mr. Campbell went to Edinburgh to live and there was soon invited to take up part-time lecturing in the Department of Building at the Heriot-Watt College. Mr. Norman C. Sidwell, Head of that Department, says: 'During the past seven years some thousands of building and quantity surveying students have benefited from his most able and enthusiastic teaching and from his unfailing patience and perseverance during "tutorials", particularly with the younger students.'

Mr. Campbell was a Vice-President of the Yorkshire Association for Building Education and on going to Scotland was instrumental in the starting of the Scottish Association for Building Education, of which he was Hon. Secretary until the time of his death. Mr. Sidwell comments: 'It has been largely due to his wide experience and hard work that this Association has been held together.

'The students and staff of the Heriot-Watt College and all his old associates and friends will regret the passing of this kindly and simple man.'

Robert Hargreaves Cunliffe, J.P. [*F*], died on 4 March, aged 77.

Mr. Cunliffe served his articles in Accrington and Blackburn and practised first in Accrington and Manchester and later in Fleetwood and Cleveleys. Among his works are the Promenade at Cleveleys, St. Andrew's, Cleveleys, and a good deal of local housing. He was an exhibitor at the Royal Academy.

Mr. Cunliffe was a Justice of the Peace and a County Alderman of Lancashire.

Donald St. Aubyn Hamilton, F.R.I.C.S. [*L*], died on 10 March, aged 49.

Mr. Hamilton began practice in London at the early age of 22 and was the founder member of the firm of Kenneth Wakeford, Jerram and Harris [*FF/L*], which continues from 7 Connaught Place, W.2. Mr. Hamilton retired in 1952.

The practice is an extensive general one and has included private houses, factories, shops, offices, blocks of flats for Bethnal Green and Wandsworth Borough Councils, the Ocean Salts plant building at Barry, premises for Messrs. Lilley and Skinner Ltd., a report on Malta for the Admiralty and the rebuilding of portions of the central area of Plymouth.

Arthur George Percy Kent [*L*] died on 26 March, aged 60.

Mr. Kent received his architectural training with the late Gerald Horsley, of Gray's Inn, served in the 1914–18 war and later went to Messrs. Truman, Hanbury, Buxton and Co. Ltd. where in 1939 he became Architect to the Works Department, carrying out a number of alterations and considerable building work. Mr. F. G. A. Hall, F.R.I.C.S. [*F*], says 'his sudden death from coronary thrombosis was a great shock to his colleagues in the brewery'.

Frederick George Brudenal-Bruce Hawkins, F.R.A.I.A. [*F*], died on 27 January, aged 71.

Mr. Desmond Sands, D.S.O., D.F.C. [*A*], of Perth, Western Australia, sends the following account of Mr. Hawkins' career.

'Mr. Hawkins was born in South Africa in 1885 and served his articles there. He then went to London to further his experience. He was in the office of Sir Raymond Unwin and worked on the original design and construction of Hampstead Garden Suburb. He also worked in the office of Sir Aston Webb. He was sent out to Bombay by Sir Aston to the City Improvement Trust, where he spent twelve years. He held a commission in the Indian Defence Force 1914–18. He then came to Australia and practised in Melbourne in partnership with Marcus Barlow. During this time Temple Court was erected to his design, the contract amounting to £265,000 and being at that time the largest contract let for an office building in Australia. The partnership in Melbourne carried out many large contracts for office buildings and also large domestic work.

'In 1929 Mr. Hawkins came to Perth to supervise the erection of the Victoria Insurance Co. building in St. George's Terrace which he had designed, and decided to practise here; which he did until his recent death. In addition to the Victoria Insurance building he also erected the Yorkshire Insurance building, the Atlas Insurance building on the Esplanade and

the Mercantile Mutual Insurance building in St. George's Terrace—one of the last modern office blocks erected in Perth prior to World War II. He also carried out a considerable amount of large domestic work and industrial and factory building in the city and suburbs. He entered into partnership with Desmond Sands [*A*] in 1951, the firm being F. G. B. Hawkins and Desmond Sands.

'He was a member of the Registration Board in Western Australia and was still serving on the Board at the time of his death. He took a keen interest in architectural education in the state and was co-examiner for the Board for a number of years.'

Herbert Steel-Ogden [*Retd. L*] died on 5 December 1955, aged 83.

Mr. Steel-Ogden served his articles in Bradford but practised throughout his career in Sheffield, beginning in about 1919. Among the local buildings which he designed is the Jewish Synagogue in Wilson Road. Mr. Steel-Ogden was a devoted churchman and took an active interest in the parish and church of St. Clement's, Newhall, and in that of All Saints, Ecclesall.

William Needham Spence [*A*] died on 15 January, aged 61.

Mr. F. G. Hicks [*Retd. F*], of County Dublin, sends us the following account of Mr. Spence's career:

'Willie Spence was born and brought up in Dublin and was articled to Batchelor and Hicks. He was a clever draughtsman and a very nice fellow. He won the Downes Bronze Medal for measured drawings in 1913–14.

'After training in the O.T.C. he joined up in 1916 with a Commission in the Royal Engineers and saw service in Mesopotamia and was mentioned in dispatches. After the war he was for some years with Messrs. Campbell Jones and Smithers. At the time of his death he held an appointment in the Ministry of Supply.'

William Scott [*F*] died on 9 January, aged 73.

Mr. Scott studied at the Manchester School of Technology, Salford Royal Technical School and the Manchester School of Art. From 1897–1901 he was a pupil with Messrs. Stott and Sons, architects and surveyors of Manchester, and thereafter until 1907 was an assistant with that firm. In 1907 he joined the staff of Bradshaw Gass and Hope, Bolton, Lancs., and in 1920 became a partner in the firm, and was still in partnership at the time of his death. He was elected a Licentiate of the Royal Institute in 1925 and a Fellow in 1930.

Mr. Scott's chief concern was with the industrial work of the practice, and he dealt with many schemes for mills and factories throughout the country. For a time he was in charge of the quantity surveying section of the practice and dealt with contract administration.

During 1943–44 he served on the Placing and Managing Contracts Committees Nos. 1 and 2 of the Central Council for Works and Buildings, under the auspices of the Ministry of Works and Buildings.

In private life he was a keen Freemason and was a Provincial Officer. He was also a member of the Mark and Royal Arch degrees. He also gave much service to the Presbyterian Church in Bolton.

Francis Augustus Richards [*Retd. F*] died on 8 January 1955, aged 72.

Mr. Richards took his degree of M.A. at Oxford and began practice in London about 1903, founding the firm of Jarvis and Richards. The firm were for many years architects to the Surrey County Council Education Committee and built a number of primary, secondary and technical schools in Surrey between 1903 and 1939. Mr. Richards was also architect to the Surrey branch of the Territorial Army.

Members' Column

This column is reserved for notices of changes of address, partnership and partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

APPOINTMENTS

Mr. G. J. Foxley [*A*] has been appointed Assistant County Architect, New Schools, in the County Architect's Department, Derbyshire County Council.

PRACTICES AND PARTNERSHIPS

Mr. A. J. Hodsdon Archard [*F*] and **Mr. Ronald Hardy,** M.B.E. [*A*], announce that the practice carried on between them under the name of Archard and Hardy has been dissolved by mutual consent with effect from 30 June 1956. Mr. Archard will practise from 20 Lowndes Street, London, S.W.1 (BELgravia 3761). Mr. Hardy will practise from 10 Gray's Inn Square, London, W.C.1 (CHAncery 3897).

Mr. Edward Craven, M.T.P.I. [*A*], has opened a branch office at 3 St. Mary's Place, Stamford, where he will be pleased to receive trade catalogues, etc.

Messrs. James Cubitt and Partners [*F/AA*] have opened an office in Yorkshire. **Mr. J. I. H. Marshall** [*A*] will be pleased to receive trade catalogues, etc., at Stray Close, Slingsby Walk, Harrogate, Yorks. (Harrogate 67338).

Mr. Alexander Green [*L*] has begun practice at 1 North Terrace, corner Hackney Road, Adelaide.

Mr. John D. Morgan [*A*] has taken into partnership **Mr. David C. Branch** [*A*] and the partnership will be known as **John D. Morgan and David C. Branch** and will continue from 6/9 Charterhouse Square, London, E.C.1.

Mr. C. E. Robson [*F*] has taken into partnership **Mr. K. O. W. Hardy** [*A*], who has resigned his position as Senior Architect in the Federal Public Works Department of Rhodesia and Nyasaland. The firm will be known as **C. E. Robson, Hardy and Associates** and the office address will be 72 Stanley Avenue, Salisbury, Southern Rhodesia.

Mr. Robert Steane [*A*], **Mr. Gerald Shipman** [*A*] and **Mr. Sherban Cantacuzino** [*A*] have formed a partnership under the name of **Steane, Shipman and Cantacuzino** and will have their offices at 18 Buckingham Street, Strand, London, W.C.2 (TRAfalgar 2774). They will be pleased to receive samples and trade catalogues.

CHANGES OF ADDRESS

The address of **Mr. G. Trevor Edge** [*A*] is now c/o W. D. Cathcart and Son, P.O. Box 138, 43 Gordon Avenue, Salisbury, S. Rhodesia.

The address of **Mr. F. A. Key** [*A*] is now Ministry of Works, Lawnswood, Leeds 16 (Leeds 674411).

Mr. Douglas Hall [*F*], practising as **Richard and Douglas Hall,** has changed his address to Bowdler's House, Town Walls, Shrewsbury.

The address of **Mr. Geoffrey W. Mills** [*A*] is now 43 Sanderstead Court Avenue, Sanderstead, Surrey (SANderstead 4542).

Mr. Anthony E. Mould [*A*] has moved to Meadow Cottage, Great Bealings, nr. Woodbridge, Suffolk (Woodbridge 870). He will be pleased to receive trade catalogues.

Mr. Harry Parsons [*A*] is now at 23 Girdlestone Road, Oxford.

Mr. F. Potter [*F*] has changed his business address to 3 Vicarage Road, Edgbaston, Birmingham 15 (Edgbaston 4283).

The entrance to the premises of **Messrs. Westwood, Sons and Harrison** [*FF/A*] will in future be from 19 Broadstone Place, instead of 46 Baker Street, and the address will therefore be 19 Broadstone Place, Baker Street, W.1.

Mr. Kenneth F. Wray [*F*] is transferring his Eastbourne practice to 43 Wellington Square, Hastings, as from 1 August. His London address is unchanged.

PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Associate, English, 44, University trained, seeks situation with possibility of partnership in southern half of England (not London). Considerable experience of town and country practice. Single, car driver, some capital available. Box 48, c/o Secretary, R.I.B.A.

Architect with old-established Midlands practice requires qualified assistant with view to partnership. Box 50, c/o Secretary R.I.B.A.

Fellow (46, 20 years in practice), dissolving partnership by mutual consent and considering retaining part of large offices (W.1 with parking facilities for cars), wishes to contact one or more practising architects with view to partnership. Box 51, c/o Secretary R.I.B.A.

FOR SALE AND WANTED

For sale. 100-ft. Chesterman steel tape, little used. Offers to Box 49, c/o Secretary, R.I.B.A.

The Royal Institute of British Architects, as a body, is not responsible for statements made or opinions expressed in the JOURNAL.